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Contents

Part One

- xli *Conference Committee*
- xliii *Introduction*
- xliv *High redshift galaxy surveys (Plenary Paper) [7016-500]*
M. Iye, National Astronomical Observatory of Japan (Japan)

INSTRUMENTATION AT MAJOR OBSERVATORIES I

- 7014 02 **Instrumentation at the W. M. Keck Observatory (Invited Paper) [7014-01]**
I. S. McLean, Univ. of California, Los Angeles (United States); S. M. Adkins, W. M. Keck Observatory (United States)
- 7014 03 **Instrumentation at the ESO VLT (Invited Paper) [7014-02]**
A. F. M. Moorwood, European Southern Observatory (Germany)
- 7014 04 **The status and future plan of Subaru Telescope instruments (Invited Paper) [7014-03]**
H. Takami, Subaru Telescope, National Astronomical Observatory of Japan (Japan)
- 7014 05 **Current and future facility instruments at the Gemini Observatory (Invited Paper) [7014-04]**
J. B. Jensen, S. J. Kleinman, D. A. Simons, M. Lazo, F. Rigaut, J. K. White, Gemini Observatory (United States)
- 7014 06 **Present and future instrumentation for the Hobby-Eberly Telescope (Invited Paper) [7014-05]**
G. J. Hill, P. J. MacQueen, P. Palunas, S. I. Barnes, McDonald Observatory, Univ. of Texas at Austin (United States); M. D. Shetrone, Hobby-Eberly Telescope, Univ. of Texas at Austin (United States)
- 7014 07 **Commissioning of the Southern African Large Telescopes (SALT) first-generation instruments (Invited Paper) [7014-06]**
D. A. H. Buckley, South African Astronomical Observatory (South Africa); S. I. Barnes, Univ. of Canterbury (New Zealand); E. B. Burgh, Space Astronomy Lab., Univ. of Wisconsin, Madison (United States); S. Crawford, South African Astronomical Observatory (South Africa); P. L. Cottrell, Univ. of Canterbury (New Zealand); A. Kniazev, South African Astronomical Observatory (South Africa); K. H. Nordsieck, Space Astronomy Lab., Univ. of Wisconsin, Madison (United States); D. O'Donoghue, South African Astronomical Observatory (South Africa); N. Rangwala, R. Zánmar Sánchez, Rutgers Univ. (United States); R. M. Sharples, Durham Univ. (United Kingdom); A. I. Sheinis, Space Astronomy Lab., Univ. of Wisconsin, Madison (United States); P. Väisänen, South African Astronomical Observatory (South Africa); T. B. Williams, Rutgers Univ. (United States)
- 7014 08 **The GTC facility instruments: a status review (Invited Paper) [7014-07]**
J. M. Rodriguez Espinosa, P. Alvarez Martin, GTC Project, Instituto de Astrofísica de Canarias (Spain)

- 7014 09 **An overview of instrumentation for the Large Binocular Telescope (Invited Paper)** [7014-08]
R. M. Wagner, Large Binocular Telescope Observatory (United States) and The Ohio State Univ. (United States)

INSTRUMENTATION AT MAJOR OBSERVATORIES II

- 70140A **Instrumentation at the Magellan Telescopes 2008** [7014-9]
D. J. Osip, D. Floyd, R. Covarrubias, Carnegie Observatories, Las Campanas Observatory (Chile)
- 7014 0B **Comprehensive review of the converted MMT's instrument suite** [7014-10]
M. Hastie, MMT Observatory (United States) and Smithsonian Astrophysical Observatory (United States); B. McLeod, Smithsonian Astrophysical Observatory (United States)

OPTICAL IMAGING

- 7014 0C **The LSST camera overview: design and performance** [7014-11]
K. Gilmore, S. Kahn, M. Nordby, Stanford Linear Accelerator Ctr. (United States); P. O'Connor, Brookhaven National Lab. (United States); J. Oliver, Harvard Univ. (United States); V. Radeka, Brookhaven National Lab. (United States); T. Schalk, Univ. of California at Santa Cruz (United States); R. Schindler, Stanford Linear Accelerator Ctr. (United States); R. Van Berg, Univ. of Pennsylvania (United States)
- 7014 0D **The Pan-STARRS Gigapixel Camera #1 and STARGRASP controller results and performance** [7014-12]
P. Onaka, J. L. Tonry, S. Isani, A. Lee, R. Uyeshiro, C. Rae, L. Robertson, G. Ching, Institute for Astronomy, Univ. of Hawaii (United States)
- 7014 0E **The Dark Energy Camera (DECam)** [7014-13]
D. L. DePoy, The Ohio State Univ. (United States); T. Abbott, Cerro Tololo Inter-American Observatory (Chile); J. Annis, M. Antonik, Fermi National Accelerator Lab. (United States); M. Barceló, Institut de Física d'Altes Energies (Spain); R. Bernstein, B. Bigelow, Univ. of California, Santa Cruz (United States); D. Brooks, Univ. College London (United Kingdom); E. Buckley-Geer, Fermi National Accelerator Lab. (United States); J. Campa, Ctr. de Investigaciones Energéticas, Medioambientales y Tecnológicas (Spain); L. Cardiel, F. Castander, Institut de Física d'Altes Energies (Spain); J. Castilla, Ctr. de Investigaciones Energéticas, Medioambientales y Tecnológicas (Spain); H. Cease, Fermi National Accelerator Lab. (United States); S. Chappa, Argonne National Lab. (United States); E. Dede, Univ. of Michigan (United States); G. Derylo, H. T. Diehl, Fermi National Accelerator Lab. (United States); P. Doel, Univ. College London (United Kingdom); J. DeVicente, Ctr. de Investigaciones Energéticas, Medioambientales y Tecnológicas (Spain); J. Estrada, D. Finley, B. Flaugher, Fermi National Accelerator Lab. (United States); E. Gaztanaga, Institut de Física d'Altes Energies (Spain); D. Gerdes, Univ. of Michigan (United States); M. Gladders, Univ. of Chicago (United States); V. Guarino, Argonne National Lab. (United States); G. Gutierrez, J. Hamilton, Fermi National Accelerator Lab. (United States); M. Haney, Univ. of Illinois at Urbana-Champaign (United States); S. Holland, Lawrence-Berkeley National Lab. (United States); K. Honscheid, The Ohio State Univ. (United States); D. Huffman, Fermi National Accelerator Lab. (United States); I. Karliner, D. Kau, Univ. of Illinois at Urbana-Champaign (United States); S. Kent, M. Kozlovsky, D. Kubik, Fermi National Accelerator Lab. (United States); K. Kuehn, The Ohio State Univ. (United States);

S. Kuhlmann, Argonne National Lab. (United States); K. Kuk, F. Leger, H. Lin, Fermi National Accelerator Lab. (United States); G. Martinez, Ctr. de Investigaciones Energéticas, Medioambientales y Tecnológicas (Spain); M. Martinez, Institut de Física d'Altes Energies (Spain); W. Merritt, Fermi National Accelerator Lab. (United States); J. Mohr, Univ. of Illinois at Urbana-Champaign (United States); P. Moore, Cerro Tololo Inter-American Observatory (Chile); T. Moore, Univ. of Illinois at Urbana-Champaign (United States); B. Nord, Univ. of Michigan (United States); R. Ogando, Observatorio Nacional de Brazil (Brazil); J. Olsen, B. Onal, J. Peoples, Fermi National Accelerator Lab. (United States); T. Qian, Univ. of Illinois at Urbana-Champaign (United States); N. Roe, Lawrence-Berkeley National Lab. (United States); E. Sanchez, Observatorio Nacional de Brazil (Brazil); V. Scarpine, Fermi National Accelerator Lab. (United States); R. Schmidt, Cerro Tololo Inter-American Observatory (Chile); R. Schmitt, Fermi National Accelerator Lab. (United States); M. Schubnell, Univ. of Michigan (United States); K. Schultz, Fermi National Accelerator Lab. (United States); M. Selen, Univ. of Illinois at Urbana-Champaign (United States); T. Shaw, Fermi National Accelerator Lab. (United States); V. Simaitis, Univ. of Illinois at Urbana-Champaign (United States); J. Slaughter, Fermi National Accelerator Lab. (United States); C. Smith, Cerro Tololo Inter-American Observatory (Chile); H. Spinka, Argonne National Lab. (United States); A. Stefanik, W. Stuermer, Fermi National Accelerator Lab. (United States); R. Talaga, Argonne National Lab. (United States); G. Tarle, Univ. of Michigan (United States); J. Thaler, Univ. of Illinois at Urbana-Champaign (United States); D. Tucker, Fermi National Accelerator Lab. (United States); A. Walker, Cerro Tololo Inter-American Observatory (Chile); S. Worswick, Univ. College London (United Kingdom); A. Zhao, Argonne National Lab. (United States)

7014 0F **First light of UT 15-band dichroic-mirror camera** [7014-14]

M. Doi, J. Hayano, H. Utsunomiya, Y. Ihara, K. Tokita, S. Sako, Institute of Astronomy, The Univ. of Tokyo (Japan); S. Okamura, The Univ. of Tokyo (Japan); N. Takanashi, Institute of Astronomy, The Univ. of Tokyo (Japan) and National Astronomical Observatory of Japan (Japan); T. Morokuma, H. Furusawa, H. Nakaya, Y. Komiyama, M. Yagi, N. Okada, National Astronomical Observatory of Japan (Japan); A. Arai, M. Uemura, K. S. Kawabata, Hiroshima Astrophysical Science Ctr., Hiroshima Univ. (Japan); T. Yamashita, National Astronomical Observatory of Japan (Japan) and Hiroshima Astrophysical Science Ctr., Hiroshima Univ. (Japan); T. Ohsugi, Hiroshima Astrophysical Science Ctr., Hiroshima Univ. (Japan); H. Ito, The Graduate Univ. for Advanced Studies (Japan); H. Kuncarayakti, Institut Teknologi Bandung (Indonesia); M. Abe, S. Hasegawa, Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (Japan); N. Takeyama, Genesis Corp. (Japan); T. Yamamuro, Optcraft (Japan); S. Iwamura, MRJ Ltd. (Japan)

OPTICAL SPECTROSCOPY

7014 0H **WIYN bench upgrade: a revitalized spectrograph** [7014-16]

M. Bershady, Univ. of Wisconsin, Madison (United States); S. Barden, Anglo-Australian Observatory (Australia); P.-A. Blanche, Ctr. Spatial de Liège (Belgium); D. Blanco, National Optical Astronomical Observatory (United States); C. Corson, National Optical Astronomical Observatory (United States) and WIYN Observatory (United States); S. Crawford, Univ. of Wisconsin, Madison (United States); J. Glaspey, National Optical Astronomical Observatory (United States); S. Habraken, Ctr. Spatial de Liège (Belgium); G. Jacoby, National Optical Astronomical Observatory (United States) and WIYN Observatory (United States); J. Keyes, Univ. of Wisconsin, Madison (United States); P. Knezek, National Optical Astronomical Observatory (United States) and WIYN Observatory (United States); P. Lemaire, Ctr. Spatial de Liège (Belgium); M. Liang, National Optical Astronomical

Observatory (United States); E. McDougall, National Optical Astronomical Observatory (United States) and WIYN Observatory (United States); G. Poczulp, D. Sawyer, National Optical Astronomical Observatory (United States); K. Westfall, Univ. of Wisconsin, Madison (United States); D. Willmarth, National Optical Astronomical Observatory (United States)

- 7014 OI **A spatial heterodyne spectrometer for diffuse H- α spectroscopy** [7014-17]
A. I. Sheinis, E. Mierkiewicz, F. Roesler, Univ. of Wisconsin, Madison (United States); J. Harlander, St. Cloud State Univ. (United States); A. Bodkin, Bodkin Design and Engineering (United States)
- 7014 OJ **The SOPHIE spectrograph: design and technical key-points for high throughput and high stability** [7014-18]
S. Perruchot, D. Kohler, CNRS-Observatoire de Haute-Provence (France); F. Bouchy, CNRS-Institut d'Astrophysique de Paris (France); Y. Richaud, P. Richaud, CNRS-Observatoire de Haute-Provence (France); G. Moreaux, CNRS-Lab. d'Astrophysique de Marseille (France); M. Merzougui, R. Sotfile, L. Hill, G. Knispel, X. Regal, J.-P. Meunier, S. Ilovaisky, H. Le Coroller, D. Gillet, J. Schmitt, CNRS-Observatoire de Haute-Provence (France); F. Pepe, M. Fleury, D. Sosnowska, Observatoire de Genève, Univ. de Genève (Switzerland); P. Vors, CNRS-Observatoire de Haute-Provence (France); D. Mégevand, Observatoire de Genève, Univ. de Genève (Switzerland); P. E. Blanc, C. Carol, A. Point, A. Laloge, J.-C. Brunel, CNRS-Observatoire de Haute-Provence (France)
- 7014 OK **The optical design of the Southern African Large Telescope high resolution spectrograph: SALT HRS** [7014-152]
S. I. Barnes, McDonald Observatory, Univ. of Texas at Austin (United States) and Univ. of Canterbury (New Zealand); P. L. Cottrell, M. D. Albrow, N. Frost, G. Graham, G. Kershaw, R. Ritchie, Univ. of Canterbury (New Zealand); D. Jones, Prime Optics (Australia); R. Sharples, D. Bramall, J. Schmoll, P. Luke, P. Clark, L. Tyas, Durham Univ. (United Kingdom); D. A. H. Buckley, J. Brink, Southern African Large Telescope Observatory (South Africa)
- 7014 OL **SixPak: a wide-field IFU for the William Herschel Telescope** [7014-20]
L. B. Venema, T. Schoenmaker, ASTRON (Netherlands); M. Verheijen, S. Trager, Kapteyn Astronomical Institute, Univ. of Groningen (Netherlands); R. Rutten, Isaac Newton Group of Telescopes (Spain); M. Bershady, Univ. of Wisconsin, Madison (United States); S. Larsen, Astronomical Institute, Utrecht Univ. (Netherlands); R. Peletier, M. Spaans, Kapteyn Astronomical Institute, Univ. of Groningen (Netherlands)
- 7014 OM **New design approaches for a very high resolution spectrograph for the combined focus of the VLT** [7014-21]
P. Spanò, INAF - Osservatorio Astronomico di Brera (Italy); B. Delabre, H. Dekker, G. Avila, European Southern Observatory (Germany)
- 7014 ON **PEPSI: the Potsdam Echelle Polarimetric and Spectroscopic Instrument for the LBT** [7014-22]
K. G. Strassmeier, M. Woche, I. Ilyin, E. Popow, S.-M. Bauer, F. Dionies, T. Fechner, M. Weber, A. Hofmann, J. Storm, R. Materne, W. Bittner, J. Bartus, T. Granzer, C. Denker, T. Carroll, M. Kopf, I. DiVarano, Astrophysical Institute Potsdam (Germany); E. Beckert, Fraunhofer-Institute for Applied Optics and Engineering (Germany); M. Lesser, Univ. of Arizona (United States)

- 7014 0O **The upgrade of HARPS to a full-Stokes high-resolution spectropolarimeter** [7014-23]
F. Snik, S. Jeffers, C. Keller, Sterrekundig Instituut Utrecht (Netherlands); N. Piskunov, O. Kochukhov, Uppsala Univ. (Sweden); J. Valenti, Space Telescope Science Institute (United States); C. Johns-Krull, Rice Univ. (United States)
- 7014 0P **The spectrograph ESOPO: scientific goals, high-level requirements, and introduction to the design** [7014-254]
J. Echevarría, A. Farah, R. Costero, J. González, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); G. Avila, European Southern Observatory (Germany); M. Arroyo, Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); F. Cobos, E. Colorado, A. Córdova, O. Chapa, B. García, F. Garfias, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); F. Granados, Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); G. Guisa, E. Luna, B. Martínez, R. Michel, F. Murillo, M. H. Pedrayes, F. Pérez, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); S. Quechol, Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); F. Quirós, G. Sierra, C. Tejada, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico)

INFRARED CAMERAS AND SPECTROMETERS

- 7014 0Q **Performance of HAWK-I: the new high acuity wide-field K-band imager** [7014-24]
M. Kissler-Patig, European Southern Observatory (Germany); N. Ageorges, European Southern Observatory (Chile) and Max-Planck-Institut für extraterrestrische Physik (Germany); C. Alves de Oliveira, European Southern Observatory (Germany); L. R. Bedin, European Southern Observatory (Germany) and Space Telescope Science Institute (United States); E. Bendek, European Southern Observatory (Chile); M. Casali, R. Dorn, R. Esteves, G. Finger, D. Gojak, Y. Jung, M. Kiekebusch, A. Moorwood, J.-L. Lizon, M. Petr-Gotzens, J. F. Pirard, J. Pritchard, European Southern Observatory (Germany); F. Selman, European Southern Observatory (Chile)
- 7014 0R **Day-one science with CanariCam, the Gran Telescopio Canarias multi-mode mid-infrared camera** [7014-25]
C. M. Telesco, C. Packham, Univ. of Florida (United States); C. Ftaclas, Institute for Astronomy, Univ. of Hawaii (United States); J. H. Hough, Ctr. for Astrophysics Research, Univ. of Hertfordshire (United Kingdom); M. M. Moerchen, K. T. Hanna, J. A. Julian, F. Varosi, R. E. Julian, G. Bennett, C. Murphey, F. Reyes, C. Warner, Univ. of Florida (United States)
- 7014 0T **FMOS: the fiber multiple-object spectrograph: Part VI. Onboard performances and results of the engineering observations** [7014-27]
F. Iwamuro, T. Maihara, Kyoto Univ. (Japan); M. Akiyama, Astronomical Institute, Tohoku Univ. (Japan); M. Kimura, N. Tamura, N. Takato, P. Tait, Subaru Telescope, National Astronomical Observatory of Japan (Japan); K. Ohta, S. Eto, Y. Moritani, Kyoto Univ. (Japan); G. B. Dalton, Univ. of Oxford (United Kingdom) and STFC, Rutherford Appleton Lab. (United Kingdom); I. J. Lewis, H. Lee, Univ. of Oxford (United Kingdom); I. A. J. Tosh, T. R. Froud, STFC, Rutherford Appleton Lab. (United Kingdom); G. J. Murray, C. Blackburn, Univ. of Durham (United Kingdom); D. G. Bonfield, ORAU, NASA Goddard Space Flight Ctr. (United States); P. R. Gillingham, S. Smedley, G. A. Smith, G. Frost, Anglo-Australian Observatory (Australia)

- 7014 OU **FIRE: a near-infrared cross-dispersed echellette spectrometer for the Magellan telescopes** [7014-28]
 R. A. Simcoe, A. J. Burgasser, MIT-Kavli Ctr. for Astrophysics and Space Research (United States); R. A. Bernstein, B. C. Bigelow, UCO/Lick Observatory, Santa Cruz (United States); J. Fishner, MIT-Kavli Ctr. for Astrophysics and Space Research (United States); W. J. Forrest, C. McMurtry, J. L. Pipher, Univ. of Rochester (United States); P. L. Schechter, M. Smith, MIT-Kavli Ctr. for Astrophysics and Space Research (United States)
- 7014 OV **FLAMINGOS-2: the facility near-infrared wide-field imager and multi-object spectrograph for Gemini** [7014-29]
 S. Eikenberry, R. Elston, S. N. Raines, J. Julian, K. Hanna, C. Warner, R. Julian, R. Bandyopadhyay, J. G. Bennett, A. Bessoff, M. Branch, R. Corley, C. Dewitt, J.-D. Eriksen, S. Frommeyer, A. Gonzalez, M. Herlevich, D. Hon, A. Marin-Franch, J. Marti, C. Murphey, W. Rambold, D. Rashkin, Univ. of Florida (United States); B. Leckie, W. R. Gardhouse, M. Fletcher, T. Hardy, J. Dunn, R. Wooff, Herzberg Institute of Astrophysics, National Research Council Canada (Canada)
- 7014 OW **CRILES: commissioning and first science results** [7014-30]
 H. U. Käufel, European Southern Observatory (Germany); P. Amico, European Southern Observatory (Chile); P. Ballester, European Southern Observatory (Germany); E. A. Bendek Selman, European Southern Observatory (Chile); P. Bristow, M. Casali, B. Delabre, D. Dobrzycka, R. J. Dorn, European Southern Observatory (Germany); R. Esteves, Consultant (Portugal); G. Finger, European Southern Observatory (Germany); G. Gillet, European Southern Observatory (Chile); D. Gojak, M. Hilker, P. Jolley, Y. Jung, F. Kerber, B. Klein, J.-L. Lizon, J. Paufique, J.-F. Pirard, E. Pozna, European Southern Observatory (Germany); H. Sana, L. Sanzana, R. Schmutzer, European Southern Observatory (Chile); A. Seifahrt, Institut für Astrophysik, Univ. Göttingen (Germany); R. Siebenmorgen, European Southern Observatory (Germany); A. Smette, European Southern Observatory (Chile); J. Stegmeier, L. E. Tacconi-Garman, European Southern Observatory (Germany); S. Uftenthaler, Instituut voor Sterrenkunde, Katholieke Univ. Leuven (Belgium); E. Valenti, U. Weilenmann, European Southern Observatory (Chile); B. Wolff, European Southern Observatory (Germany)
- 7014 OX **The performance of TripleSpec at Palomar** [7014-31]
 T. L. Herter, C. P. Henderson, Cornell Univ. (United States); J. C. Wilson, Univ. of Virginia (United States); K. Y. Matthews, G. Rahmer, M. Bonati, California Institute of Technology (United States); P. S. Muirhead, J. D. Adams, J. P. Lloyd, Cornell Univ. (United States); M. F. Skrutskie, Univ. of Virginia (United States); D.-S. Moon, Univ. of Toronto (Canada); S. C. Parshley, Cornell Univ. (United States); M. J. Nelson, Univ. of Virginia (United States); F. Martinache, G. E. Gull, Cornell Univ. (United States)
- 7014 OY **Precision radial velocity spectrograph** [7014-32]
 H. R. A. Jones, Ctr. for Astrophysics Research, Univ. of Hertfordshire (United Kingdom); J. Rayner, Institute for Astronomy, Univ. of Hawaii (United States); L. Ramsey, The Pennsylvania State Univ. (United States); D. Henry, B. Dent, D. Montgomery, A. Vick, D. Ives, I. Egan, D. Lunney, P. Rees, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom); A. Webster, Institute of Astronomy, Univ. of Edinburgh (United Kingdom); C. Tinney, Univ. of New South Wales (Australia); M. Liu, Institute for Astronomy, Univ. of Hawaii (United States)

AIRBORNE INSTRUMENTS

- 7014 0Z **Verification of the optical system performance of FIFI-LS: the field-imaging far-infrared line spectrometer for SOFIA** [7014-33]
M. Schweitzer, A. Poglitsch, W. Raab, Max-Planck-Institut für extraterrestrische Physik (Germany); R. Klein, Univ. of California, Berkeley (United States); R. Hönle, N. Geis, R. Genzel, Max-Planck-Institut für extraterrestrische Physik (Germany); L. W. Looney, M. Hamidouche, Univ. of Illinois, Urbana-Champaign (United States); T. K. Henning, Max-Planck-Institut für Astronomie (Germany)
- 7014 10 **GREAT: a first light instrument for SOFIA** [7014-34]
S. Heyminck, R. Güsten, Max-Planck-Institut für Radioastronomie (Germany); P. Hartogh, Max-Planck-Institut für Sonnensystemforschung (Germany); H.-W. Hübers, Institut für Planetenforschung, Deutsches Zentrum für Luft- und Raumfahrt e.V. (Germany); J. Stutzki, U. U. Graf, KOSMA, Univ. zu Köln (Germany)
- 7014 11 **Ground-based commissioning of FLITECAM** [7014-35]
E. C. Smith, I. S. McLean, Univ. of California, Los Angeles (United States)
- 7014 12 **Improved sensitivity of the SOFIA target acquisition and tracking cameras and a high speed diagnostics camera for telescope movements in flight** [7014-36]
J. Wolf, H.-P. Röser, S. Tietz, M. Wiedemann, E. Pfüller, Deutsches SOFIA Institut, Univ. Stuttgart (Germany); D. Lilienthal, DLR Raumfahrt-Agentur (Germany)

SOLAR INSTRUMENTS

- 7014 13 **ChroTel: a robotic telescope to observe the chromosphere of the Sun** [7014-37]
T. J. Kentischer, Ch. Bethge, Kiepenheuer Institut für Sonnenphysik (Germany); D. F. Elmore, High Altitude Observatory, National Ctr. for Atmospheric Research (United States); R. Friedlein, C. Halbgewachs, Kiepenheuer Institut für Sonnenphysik (Germany); M. Knölker, High Altitude Observatory, National Ctr. for Atmospheric Research (United States); H. Peter, W. Schmidt, M. Sigwarth, Kiepenheuer Institut für Sonnenphysik (Germany); K. Streander, National Solar Observatory (United States)
- 7014 14 **Combination of two Fabry-Pérot etalons and a grating spectrograph for imaging polarimetry of the Sun** [7014-215]
L. Kleint, Institute of Astronomy, ETH Zürich (Switzerland) and Istituto Ricerche Solari Locarno (Switzerland); A. Feller, Max-Planck-Institut für Sonnensystemforschung (Germany); M. Bianda, Istituto Ricerche Solari Locarno (Switzerland) and Institute of Astronomy, ETH Zürich (Switzerland)
- 7014 15 **Apodized apertures for solar coronagraphy** [7014-39]
A. Carlotti, C. Aime, J. Arnaud, M. Faurobert, A. Ferrari, C. Grec, G. Ricort, Univ. de Nice Sophia-Antipolis, CNRS, Observatoire de la Côte d'Azur (France)
- 7014 16 **A new spectro-polarimeter for solar prominence and filament magnetic field measurements** [7014-40]
D. F. Elmore, R. Casini, G. L. Card, M. Davis, A. Lecinski, R. Lull, P. G. Nelson, S. Tomczyk, High Altitude Observatory, National Ctr. for Atmospheric Research (United States)

- 7014 17 **Polarization effects in Fabry-Pérot interferometer-based solar spectrometers** [7014-41]
H.-P. Doerr, O. von der Lühe, T. J. Kentischer, Kiepenheuer-Institut für Sonnenphysik
(Germany)

ADAPTIVE OPTICS FED INSTRUMENTATION AND HIGH CONTRAST IMAGING I

- 7014 18 **SPHERE: a planet finder instrument for the VLT** [7014-42]
J.-L. Beuzit, Lab. d'Astrophysique de l'Observatoire de Grenoble, CNRS, Univ. Jean Fourier
(France); M. Feldt, Max-Planck-Institut für Astronomie (Germany); K. Dohlen, Lab.
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Observatoire Astronomique de l'Univ. de Genève (Switzerland); L. Abe, Lab. H. Fizeau,
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M. Carbillet, Lab. H. Fizeau, UNS/CNRS/OCA (France); J. Charton, Lab. d'Astrophysique de
l'Observatoire de Grenoble, CNRS, Univ. Jean Fourier (France); R. Claudi, Osservatorio
Astronomico di Padova, INAF (Italy); M. Downing, European Southern Observatory
(Germany); C. Fabron, Lab. d'Astrophysique de Marseille, CNRS, Univ. de Provence
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Jean Fourier (France); E. Fedrigo, European Southern Observatory (Germany); T. Fusco,
ONERA (France); J.-L. Gach, Lab. d'Astrophysique de Marseille, CNRS, Univ. de Provence
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Planck-Institut für Astronomie (Germany); N. Hubin, European Southern Observatory
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Southern Observatory (Germany); M. Langlois, Lab. d'Astrophysique de Marseille, CNRS,
Univ. de Provence (France); R. Lenzen, Max-Planck-Institut für Astronomie (Germany);
C. Moutou, Lab. d'Astrophysique de Marseille, CNRS, Univ. de Provence (France);
A. Pavlov, Max-Planck-Institut für Astronomie (Germany); C. Petit, ONERA (France); J. Pragt,
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Astronomy, ETH Zurich (Switzerland); E. Stadler, Lab. d'Astrophysique de l'Observatoire de
Grenoble, CNRS, Univ. Jean Fourier (France); C. Thalmann, Institute of Astronomy, ETH
Zurich (Switzerland); M. Turatto, Osservatorio Astronomico di Padova, INAF (Italy); S. Udry,
Observatoire Astronomique de l'Univ. de Genève (Switzerland); F. Vakili, Lab. H. Fizeau,
UNS/CNRS/OCA (France); R. Waters, Univ. van Amsterdam (Netherlands)
- 7014 19 **HiCIAO: the Subaru Telescope's new high-contrast coronagraphic imager for adaptive
optics** [7014-43]
K. W. Hodapp, Institute for Astronomy, Univ. of Hawaii (United States); R. Suzuki, National
Astronomical Observatory of Japan (Japan) and Subaru Telescope, National Astronomical
Observatory of Japan (United States); M. Tamura, L. Abe, H. Suto, R. Kandori, J. Morino,
National Astronomical Observatory of Japan (Japan); T. Nishimura, H. Takami, O. Guyon,
Subaru Telescope, National Astronomical Observatory of Japan (United States);
S. Jacobson, V. Stahlberger, H. Yamada, R. Shelton, Institute for Astronomy, Univ. of Hawaii
(United States); J. Hashimoto, Graduate Univ. for Advanced Studies (Japan); A. Tavrov,
J. Nishikawa, N. Ukita, H. Izumiura, National Astronomical Observatory of Japan (Japan);
M. Hayashi, Subaru Telescope, National Astronomical Observatory of Japan (United
States); T. Nakajima, T. Yamada, National Astronomical Observatory of Japan (Japan);
T. Usuda, Subaru Telescope, National Astronomical Observatory of Japan (United States)

- 7014 1A **LINC-NIRVANA: achieving 10 mas imagery on the Large Binocular Telescope** [7014-44]
T. M. Herbst, Max Planck Institute for Astronomy (Germany); R. Ragazzoni, Osservatorio Astronomico di Padova (Italy); A. Eckart, Univ. of Cologne (Germany); G. Weigelt, Max Planck Institute for Radio Astronomy (Germany)
- 7014 1B **Conceptual design of IR multi-IFU spectrograph with MOAO** [7014-45]
D. Tomono, Subaru Telescope, National Astronomical Observatory of Japan (United States); W. Gæssler, Max-Planck-Institute for Astronomy (Germany); T. Nishimura, Subaru Telescope, National Astronomical Observatory of Japan (United States)
- 7014 1C **Diffraction limited imaging in the visible from large ground-based telescopes: new methods for future instruments and telescopes** [7014-46]
C. Mackay, Institute of Astronomy, Univ. of Cambridge (United Kingdom); N. Law, California Institute of Technology (United States); T. D. Stayley, Institute of Astronomy, Univ. of Cambridge (United Kingdom)

INSTRUMENTS FOR ELTs I

- 7014 1D **Early light TMT instrumentation** [7014-47]
D. Crampton, L. Simard, National Research Council Canada (Canada) and Thirty Meter Telescope Project Office (United States); D. Silva, Thirty Meter Telescope Project Office (United States)
- 7014 1E **Studies for the first generation of instruments for the European ELT** [7014-48]
S. D'Odorico, M. Casali, J.-C. Gonzales, M. Kasper, H. U. Käufel, M. Kissler Patig, L. Pasquini, S. Ramsay, R. Siebenmorgen, J. Vernet, European Southern Observatory (Germany); F. M. Zerbi, European Southern Observatory (Germany) and INAF, Osservatorio Astronomico di Brera (Italy)
- 7014 1F **Making instruments work on the European ELT** [7014-49]
M. M. Casali, J. C. Gonzalez, S. D'Odorico, European Southern Observatory (Germany)
- 7014 1G **An optical design for a wide-field optical spectrograph for TMT** [7014-50]
R. A. Bernstein, Univ. of California, Santa Cruz (United States) and UCO/Lick Observatory (United States); B. C. Bigelow, UCO/Lick Observatory (United States)
- 7014 1H **Q-Spec: a concept for the Giant Magellan Telescope high resolution optical spectrograph** [7014-51]
S. Barnes, P. MacQueen, McDonald Observatory, Univ. of Texas at Austin (United States)
- 7014 1I **CODEX: the high-resolution visual spectrograph for the E-ELT** [7014-52]
L. Pasquini, G. Avila, H. Dekker, B. Delabre, S. D'Odorico, A. Manescau, European Southern Observatory (Germany); M. Haehnelt, B. Carswell, Institute of Astrophysics, Cambridge Univ. (United Kingdom); R. Garcia-Lopez, R. Lopez, M. T. Osorio, R. Rebolo, Instituto de Astrofísica de Canarias (Spain); S. Cristiani, P. Bonifacio, V. D'Odorico, P. Molaro, INAF - Trieste (Italy); P. Spanò, F. Zerbi, INAF - Milan (Italy); M. Mayor, M. Desses, D. Megevand, F. Pepe, D. Queloz, S. Udry, Observatoire Astronomique de l'Univ. de Genève (Switzerland)

- 7014 1J **System design and analysis of the exo-planet imaging camera and spectrograph (EPICS) for the European ELT** [7014-53]
C. Vérinaud, V. Korkiakoski, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); N. Yaitskova, P. Martinez, M. E. Kasper, European Southern Observatory (Germany); J.-L. Beuzit, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); L. Abe, Lab. Hippolyte Fizeau (France); P. Baudoz, A. Boccaletti, Lab. d'Etudes Spatiales et d'Instrumentation en Astrophysique (France); K. Dohlen, Lab. d'Astrophysique de Marseille (France); R. G. Gratton, D. Mesa, Osservatorio Astronomico di Padova (Italy); F. Kerber, European Southern Observatory (Germany); H. M. Schmid, Institute of Astronomy, ETH Zürich (Switzerland); L. Venema, Leiden Univ. (Netherlands); G. Slater, M. Tecza, N. A. Thatte, Univ. of Oxford (United Kingdom)

INSTRUMENTS FOR ELTs II

- 7014 1K **EAGLE: an MOAO fed multi-IFU in the NIR on the E-ELT** [7014-54]
J.-G. Cuby, Lab. d'Astrophysique de Marseille (France); S. Morris, Univ. of Durham (United Kingdom); I. Bryson, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom); M. Lehnert, GEPI, Observatoire de Paris (France); C. Evans, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom); T. Fusco, ONERA (France); P. Jagourel, GEPI, Observatoire de Paris (France); R. Myers, Univ. of Durham (United Kingdom); G. Rousset, LESIA, Observatoire de Paris (France); H. Schnetter, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom); J.-P. Amans, GEPI, Observatoire de Paris (France); J. Allington-Smith, Univ. of Durham (United Kingdom); F. Assemat, ONERA (France) and LESIA, Observatoire de Paris (France); S. Beard, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom); F. Chemla, GEPI, Observatoire de Paris (France); R. Content, N. Dipper, Univ. of Durham (United Kingdom); M. Ferrari, Lab. d'Astrophysique de Marseille (France); E. Gendron, LESIA, Observatoire de Paris (France); J.-L. Gimenez, Lab. d'Astrophysique de Marseille (France); P. Hastings, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom); Z. Hubert, LESIA, Observatoire de Paris (France); E. Hugot, Lab. d'Astrophysique de Marseille (France); P. Laporte, GEPI, Observatoire de Paris (France); B. Leroux, F. Madec, Lab. d'Astrophysique de Marseille (France); B. Neichel, ONERA (France) and GEPI, Observatoire de Paris (France); T. Morris, Univ. of Durham (United Kingdom); E. Prieto, Lab. d'Astrophysique de Marseille (France); M. Swinbank, G. Talbot, Univ. of Durham (United Kingdom); W. Taylor, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom); F. Vidal, LESIA, Observatoire de Paris (France); S. Vivès, P. Vola, Lab. d'Astrophysique de Marseille (France); M. Wells, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom)
- 7014 1L **Optical solutions for the multi-IFU instrument EAGLE for the European ELT** [7014-55]
M. Wells, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom); S. Vives, E. Prieto, Observatoire Astronomique de Marseille-Provence (France); P. Laporte, Observatoire de Paris, CNRS, UPMC, Univ. Paris Diderot (France); P. R. Hastings, C. Evans, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom); R. Content, Univ. of Durham (United Kingdom); F. Chemla, Observatoire de Paris, CNRS, UPMC, Univ. Paris Diderot (France)

- 7014 1N **METIS: the mid-infrared E-ELT imager and spectrograph** [7014-57]
B. R. Brandl, Leiden Observatory, Leiden Univ. (Netherlands); R. Lenzen, Max-Planck-Institut für Astronomie (Germany); E. Pantin, Service d'Astrophysique, CE Saclay DMS/DAPNIA/Sap (France); A. Glasse, UK Astronomy Technology Ctr. (United Kingdom); J. Blommaert, Instituut voor Sterrenkunde, Katholieke Univ. Leuven (Belgium); L. Venema, ASTRON (Netherlands);
F. Molster, Leiden Observatory, Leiden Univ. (Netherlands); R. Siebenmorgen, European Southern Observatory (Germany); H. Boehnhardt, Max-Planck-Institut für Sonnensystemforschung (Germany); E. van Dishoeck, P. van der Werf, Leiden Observatory, Leiden Univ. (Netherlands); T. Henning, W. Brandner, Max-Planck-Institut für Astronomie (Germany); P.-O. Lagage, Service d'Astrophysique CE Saclay DMS/DAPNIA/Sap (France); T. J. T. Moore, Astrophysics Research Institute, Liverpool John Moores Univ. (United Kingdom); M. Baes, Sterrenkundig Observatorium, Univ. Gent (Belgium); C. Waelkens, Instituut voor Sterrenkunde, Katholieke Univ. Leuven (Belgium); C. Wright, Univ. of New South Wales (Australia); H. U. Käufel, European Southern Observatory (Germany); S. Kendrew, R. Stuik, L. Jolissaint, Leiden Observatory, Leiden Univ. (Netherlands)

INSTRUMENTATION TECHNIQUES AND TECHNOLOGIES I

- 7014 1O **High-resolution near-IR spectroscopy: from 4m to 40m class telescopes** [7014-58]
E. Oliva, INAF - Osservatorio di Arcetri (Italy) and Telescopio Nazionale Galileo (Spain); L. Origlia, INAF - Osservatorio di Bologna (Italy)
- 7014 1P **The FIRST project: a single-mode fiber-based very high-dynamic range diffraction-limited imaging instrument at visible to near-infrared wavelengths** [7014-59]
T. Kotani, G. Perrin, LESIA, Observatoire de Paris (France); S. Lacour, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); E. Thiébaud, Ctr. de Recherche Astrophysique de Lyon (France); J. Woillez, W. M. Keck Observatory (United States); P. Fedou, LESIA, Observatoire de Paris (France); J.-P. Berger, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); P. Bordé, Institut d'Astrophysique Spatiale, Univ. Paris-Sud (France); O. Chesneau, Observatoire de la Côte d'Azur (France); P. Kervella, LESIA, Observatoire de Paris (France); O. Lai, Canada-France-Hawaii Telescope (United States); A. Lecavelier, Univ. Pierre et Marie Curie (France); S. T. Ridgway, National Optical Astronomy Observatory (United States); D. Rouan, LESIA, Observatoire de Paris (France); A. Vidal-Madjar, Univ. Pierre et Marie Curie (France)
- 7014 1Q **Optimal fabrication of volume phase holographic grism with high efficiency and high dispersion, and its applications for astronomical observation** [7014-60]
K. Nakajima, Japan Women's Univ. (Japan); N. Ebizuka, Konan Univ. (Japan); M. Iye, National Astronomical Observatory of Japan (Japan); K. Kodate, Japan Women's Univ. (Japan)
- 7014 1R **Slanted fringe volume phase holographic gratings in astronomical instrumentation** [7014-61]
J. A. Arns, Kaiser Optical Systems, Inc. (United States); H. Dekker, European Southern Observatory (Germany)

- 7014 1S **Cryogenic VPH grisms for MOIRCS** [7014-62]
T. Ichikawa, K. Ichiyama, Astronomical Institute, Tohoku Univ. (Japan); N. Ebizuka, Konan Univ. (Japan) and RIKEN (Japan); C. Murata, Y. Taniguchi, Astronomical Institute, Tohoku Univ. (Japan); T. Okura, M. Harashima, SOMA Optics Ltd. (Japan); Y. K. Uchimoto, Institute of Astronomy, Univ. of Tokyo (Japan); M. Maruyama, Nihon Univ. (Japan); M. Iye, National Astronomical Observatory of Japan (Japan); K. Shimasaku, Univ. of Tokyo (Japan)

Part Two

INSTRUMENTATION TECHNIQUES AND TECHNOLOGIES II

- 7014 1T **The FIREBall fiber-fed UV spectrograph** [7014-63]
S. E. Tuttle, D. Schiminovich, Columbia Univ. (United States); B. Milliard, R. Grange, Observatoire d'Astronomie Marseille Provence (France); D. C. Martin, S. Rahman, California Institute of Technology (United States); J.-M. Deharveng, Observatoire d'Astronomie Marseille Provence (France); R. McLean, California Institute of Technology (United States); G. Tajiri, Columbia Univ. (United States); M. Matuszewski, California Institute of Technology (United States)
- 7014 1U **MAGIQ at the W. M. Keck Observatory: initial deployment of a new acquisition, guiding, and image quality monitoring system** [7014-64]
S. M. Adkins, W. M. Keck Observatory (United States); J. G. Cohen, California Institute of Technology (United States); J. Aycock, J. Bell, R. Cohen, A. Cooper, B. Goodrich, J. Johnson, S. H. Kwok, J. Lyke, K. McCann, C. Neyman, T. Nordin, S. Panteleev, G. Tolleth, M. Tsubota, W. M. Keck Observatory (United States)
- 7014 1V **Design and status of the optical corrector for the DES survey instrument** [7014-65]
P. Doel, Univ. College London (United Kingdom); T. Abbott, CTIO/AURA (Chile); M. Antonik, Univ. College London (United Kingdom); R. Bernstein, B. Bigelow, UCO/Lick Observatory (United States); D. Brooks, Univ. College London (United Kingdom); H. Cease, Fermi National Accelerator Lab. (United States); D. L. DePoy, Ohio State Univ. (United States); B. Flaugher, Fermi National Accelerator Lab. (United States); M. Gladders, Carnegie Observatories (United States); G. Gutierrez, S. Kent, A. Stefanik, Fermi National Accelerator Lab. (United States); A. Walker, CTIO/AURA (Chile); S. Worswick, Optical Design Consultant (United States)
- 7014 1W **Deploying comb and tunable lasers to enable precision radial velocity surveys** [7014-66]
A. Szentgyorgyi, Harvard-Smithsonian Ctr. for Astrophysics (United States); C. Cramer, Harvard-Smithsonian Ctr. for Astrophysics (United States) and Harvard Univ. (United States); A. Benedick, Massachusetts Institute of Technology (United States); A. G. Glenday, Harvard-Smithsonian Ctr. for Astrophysics (United States) and Harvard Univ. (United States); F. X. Kaertner, Massachusetts Institute of Technology (United States); S. Korzennik, Harvard-Smithsonian Ctr. for Astrophysics (United States); C.-H. Li, Harvard-Smithsonian Ctr. for Astrophysics (United States) and Harvard Univ. (United States); M. P. Ordway, D. F. Phillips, D. Sasselov, Harvard-Smithsonian Ctr. for Astrophysics (United States); R. L. Walsworth, Harvard-Smithsonian Ctr. for Astrophysics (United States) and Harvard Univ. (United States)

INSTRUMENTATION TECHNIQUES AND TECHNOLOGIES III

- 7014 1Y **X-shooter near-IR spectrograph arm realisation** [7014-68]
R. Navarro, E. Elswijk, N. Tromp, R. ter Horst, NOVA-ASTRON (Netherlands); M. Horrobin, Univ. of Amsterdam (Netherlands); J. Vernet, G. Finger, European Southern Observatory (Germany); P. Groot, Radboud Univ. Nijmegen (Netherlands); L. Kaper, Univ. of Amsterdam (Netherlands)
- 7014 1Z **NICI: combining coronagraphy, ADI, and SDI** [7014-69]
É. Artigau, Gemini Observatory, Southern Operations Ctr., AURA (Chile); B. A. Biller, Z. Wahhaj, Institute for Astronomy, Univ. of Hawaii (United States); M. Hartung, T. L. Hayward, Gemini Observatory, Southern Operations Ctr., AURA (Chile); L. M. Close, Steward Observatory, Univ. of Arizona (United States); M. R. Chun, M. C. Liu, Institute for Astronomy, Univ. of Hawaii (United States); G. Tranco, F. Rigaut, Gemini Observatory, Southern Operations Ctr., AURA (Chile); D. W. Toomey, Mauna Kea Infrared, LLC (United States); C. Flacas, Institute for Astronomy, Univ. of Hawaii (United States)
- 7014 20 **Lambert: a novel compact calibration solution for superior telescope flat fielding** [7014-70]
B. J. Haldeman, J. R. Tufts, M. G. Hidas, M. A. Dubberley, V. Posner, Las Cumbres Observatory Global Telescope (United States)
- 7014 21 **FLEX – the first light explorer: a fully OH-suppressed near-infrared integral field spectrograph** [7014-71]
S. C. Ellis, Anglo-Australian Observatory (Australia); J. Bland-Hawthorn, Institute of Astronomy, Univ. of Sydney (Australia); A. Horton, R. Haynes, A. McGrath, Anglo-Australian Observatory (Australia)
- 7014 22 **Design of compact integral field spectrometers for mid- to high-resolving powers using immersed gratings** [7014-72]
M. Wells, C. J. Evans, P. R. Hastings, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom)

POSTERS: UV/VIS/IR INSTRUMENTATION

- 7014 24 **Lessons learned from VISIR** [7014-73]
E. Pantin, C. Doucet, DSM/DAPNIA/SAP, CE Saclay (France); H. U. Käufel, European Southern Observatory (Germany); P. O. Lagage, DSM/DAPNIA/SAP, CE Saclay (France); R. Siebenmorgen, European Southern Observatory (Germany); M. Sterzik, European Southern Observatory (Chile)
- 7014 25 **LIINUS/SERPIL: a design study for interferometric imaging spectroscopy at the LBT** [7014-74]
F. Müller Sánchez, Max-Planck Institute for extraterrestrial Physics (Germany); C. Gál, Univ. of Cologne (Germany); F. Eisenhauer, Max-Planck Institute for extraterrestrial Physics (Germany); A. Krabbe, Univ. of Cologne (Germany); M. Haug, Max-Planck Institute for extraterrestrial Physics (Germany); C. Iserlohe, Univ. of Cologne (Germany); T. M. Herbst, Max-Planck Institute for Astronomy (Germany)

- 7014 27 **Fabrication of slicer optics of mid-infrared spectrometer with an image slicer (MIRSIS) for ground-based astronomy** [7014-76]
K. Mitsui, N. Okada, M. Fukushima, T. Nishino, National Astronomical Observatory of Japan (Japan); Y. K. Okamoto, Ibaraki Univ. (Japan); H. Kataza, Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (Japan); T. Onaka, The Univ. of Tokyo (Japan)
- 7014 28 **A new mid-infrared camera for ground-based 30 micron observations: MAX38** [7014-77]
T. Miyata, S. Sako, Institute of Astronomy, The Univ. of Tokyo (Japan); T. Nakamura, Institute of Astronomy, The Univ. of Tokyo (Japan) and The Univ. of Tokyo (Japan); T. Onaka, The Univ. of Tokyo (Japan); H. Kataza, Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (Japan)
- 7014 29 **A mid-infrared polarization capability for the ELT** [7014-78]
C. M. Wright, The Univ. of New South Wales@Australian Defence Force Academy (Australia); R. Siebenmorgen, European Southern Observatory (Germany); B. Stecklum, Thüringer Landessternwarte Tautenburg (Germany); M. Sterzik, H.-U. Käußl, European Southern Observatory (Germany)
- 7014 2A **A large free-standing wire grid for microwave variable-delay polarization modulation** [7014-79]
G. M. Voellmer, NASA Goddard Space Flight Ctr. (United States); C. Bennett, Johns Hopkins Univ. (United States); D. T. Chuss, NASA Goddard Space Flight Ctr. (United States); J. Eimer, Johns Hopkins Univ. (United States); H. Hui, Oregon State Univ. (United States); S. H. Moseley, NASA Goddard Space Flight Ctr. (United States); G. Novak, Northwestern Univ. (United States); E. J. Wollack, NASA Goddard Space Flight Ctr. (United States); L. Zeng, Johns Hopkins Univ. (United States)
- 7014 2B **Development of mid-infrared spectrometer with an image slicer (MIRSIS) for ground-based astronomy: developing optical and mechanical mounts** [7014-80]
Y. K. Okamoto, Ibaraki Univ. (Japan); H. Kataza, Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (Japan); K. Sato, K. Manabe, Ibaraki Univ. (Japan); K. Mitsui, N. Okada, M. Fukushima, T. Nishino, National Astronomical Observatory of Japan (Japan); K. Tomita, M. Tosa, Ibaraki Univ. (Japan); T. Onaka, Univ. of Tokyo (Japan)
- 7014 2C **A silicon and KRS-5 grism suite for FORCAST on SOFIA** [7014-81]
C. P. Deen, Univ. of Texas at Austin (United States); L. Keller, Ithaca College (United States); K. A. Ennico, NASA Ames Research Ctr. (United States); D. T. Jaffe, J. P. Marsh, Univ. of Texas at Austin (United States); J. D. Adams, Cornell Univ. (United States); N. Chitrakar, Ithaca College (United States); T. P. Greene, NASA Ames Research Ctr. (United States); D. J. Mar, Univ. of Texas at Austin (United States); T. Herter, Cornell Univ. (United States)
- 7014 2D **Direct thermal imaging of circumstellar discs and exo-planets** [7014-82]
E. Pantin, CEA/DSM - CNRS - Univ. Paris Diderot, IRFU/SAP (France); R. Siebenmorgen, European Southern Observatory (Germany); C. Cavarroc, CEA/DSM - CNRS - Univ. Paris Diderot, IRFU/SAP (France); M. F. Sterzik, European Southern Observatory (Chile)

- 7014 2E **Laboratory performance characteristics of CanariCam, the GTC facility multi-mode mid-IR camera** [7014-83]
M. M. Moerchen, C. Packham, C. M. Telesco, K. T. Hanna, J. A. Julian, F. Varosi, Univ. of Florida (United States); J. H. Hough, Ctr. for Astrophysics Research, Univ. of Hertfordshire (United Kingdom); F. Reyes, Univ. of Florida (United States); C. Ftaclas, Institute for Astronomy, Univ. of Hawaii (United States); J. G. Bennett, R. E. Julian, C. Murphey, C. Warner, Univ. of Florida (United States)
- 7014 2F **FORCAST: the first light instrument for SOFIA** [7014-84]
J. D. Adams, T. L. Herter, G. E. Gull, J. Schoenwald, Cornell Univ. (United States); L. D. Keller, Ithaca College (United States); M. Berthoud, G. J. Stacy, T. Nikola, C. P. Henderson, Cornell Univ. (United States)
- 7014 2G **Optical properties of astronomical silicates** [7014-85]
S. Rinehart, D. Benford, E. Dwek, R. Henry, J. Nuth, R. Silverberg, E. Wollack, NASA Goddard Space Flight Ctr. (United States)
- 7014 2H **Design of a mid-IR polarimeter for SOFIA** [7014-86]
C. Packham, Univ. of Florida (United States); M. Escuti, North Carolina State Univ. (United States); G. Boreman, I. Quijano, J. C. Ginn, B. Franklin, The College of Optics and Photonics, Univ. of Central Florida (United States); D. J. Axon, Rochester Institute of Technology (United States); J. H. Hough, Univ. of Hertfordshire (United Kingdom); T. J. Jones, Univ. of Minnesota (United States); P. F. Roche, Oxford Univ. (United Kingdom); M. Tamura, National Astronomical Observatory of Japan (Japan); C. M. Telesco, Univ. of Florida (United States); N. Levenson, Univ. of Kentucky (United States); J. M. Rodgers, J. P. McGuire, Optical Research Associates (United States)
- 7014 2I **Science of active galactic nuclei with the GTC and CanariCam** [7014-87]
N. A. Levenson, Univ. of Kentucky (United States); C. C. Packham, Univ. of Florida (United States); A. Alonso-Herrero, Instituto de Estructura de la Materia, CSIC (Spain); I. Aretxaga, Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); L. Colina, T. Díaz-Santos, Instituto de Estructura de la Materia, CSIC (Spain); M. Elitzur, Univ. of Kentucky (United States); R. E. Mason, Gemini Observatory, Northern Operations Ctr. (United States); E. S. Perlman, Florida Institute of Technology (United States); J. T. Radomski, Gemini South Observatory (Chile); P. F. Roche, Oxford Univ. (United Kingdom); J. M. Rodríguez Espinosa, Instituto de Astrofísica de Canarias (Spain); S. Young, Rochester Institute of Technology (United States); C. M. Telesco, Univ. of Florida (United States)
- 7014 2J **10 meter airborne observatory** [7014-88]
T. D. Ditto, DeWitt Brothers Tool Co., Inc. (United States); J. M. Ritter, Institute for Astronomy, Univ. of Hawaii (United States)
- 7014 2K **Solving the three cross-talk flavors on WIRCam and its HAWAII-2RG detectors** [7014-89]
L. Albert, M. Baril, J. Ward, S. Arnouts, D. Devost, Canada-France-Hawaii Telescope Corp. (United States)

- 7014 2L **The Canarias InfraRed Camera Experiment (CIRCE): progress of the opto- and cryo-mechanical design and manufacture** [7014-90]
M. L. Edwards, S. S. Eikenberry, M. Charcos-Llorens, Univ. of Florida (United States); A. Marin-Franch, Instituto de Astrofísica de Canarias (Spain); N. Lasso, S. N. Raines, J. Julian, K. Hanna, C. Packham, Univ. of Florida (United States); M. Rodgers, Optical Research Associates (United States); R. M. Bandyopadhyay, Univ. of Florida (United States)
- 7014 2M **Polarimetric capabilities with the Canarias InfraRed Camera Experiment (CIRCE)** [7014-91]
M. V. Charcos-Llorens, S. S. Eikenberry, M. L. Edwards, N. M. Lasso, Univ. of Florida (United States); A. Marin-Franch, Instituto de Astrofísica de Canarias (Spain); C. C. Packham, Univ. of Florida (United States)
- 7014 2N **Readout electronics and fast photometry with the Canarias InfraRed Camera Experiment (CIRCE)** [7014-92]
N. M. Lasso Cabrera, K. T. Hanna, S. S. Eikenberry, M. L. Edwards, M. V. Charcos-Llorens, Univ. of Florida (United States); A. Marin-Franch, J. Cenarro, Instituto de Astrofísica de Canarias (Spain)
- 7014 2O **AIR-C: Antarctic infra-red camera** [7014-93]
R. Lundock, T. Ichikawa, Astronomical Institute, Tohoku Univ. (Japan)
- 7014 2P **Smithsonian Widefield Infrared Camera** [7014-94]
W. R. Brown, B. A. McLeod, J. C. Geary, Harvard-Smithsonian Ctr. for Astrophysics (United States); E. C. Bowsher, Georgia State Univ. (United States)
- 7014 2Q **Preliminary optical design of PANIC, a wide-field infrared camera for CAHA** [7014-95]
M. C. Cárdenas, J. Rodríguez Gómez, Instituto de Astrofísica de Andalucía (Spain); R. Lenzen, Max-Planck-Institut für Astronomie (Germany); E. Sánchez-Blanco, Instituto de Astrofísica de Andalucía (Spain)
- 7014 2R **PANIC: the new panoramic NIR camera for Calar Alto** [7014-96]
H. Baumeister, M. Alter, Max-Planck-Institut für Astronomie (Germany); M. C. Cárdenas Vázquez, M. Fernandez, Instituto de Astrofísica de Andalucía (Spain); J. Fried, Max-Planck-Institut für Astronomie (Germany); J. Helmling, Ctr. Astronomico Hispano Aleman (Spain); A. Huber, Max-Planck-Institut für Astronomie (Germany); J.-M. Ibáñez Mengual, J. F. Rodríguez Gómez, Instituto de Astrofísica de Andalucía (Spain); W. Laun, R. Lenzen, U. Mall, V. Naranjo, J.-R. Ramos, R.-R. Rohloff, Max-Planck-Institut für Astronomie (Germany); A. García Segura, Instituto de Astrofísica de Andalucía (Spain); C. Storz, Max-Planck-Institut für Astronomie (Germany); M. Ubierna, Instituto de Astrofísica de Andalucía (Spain); K. Wagner, Max-Planck-Institut für Astronomie (Germany)
- 7014 2S **First light with NEWFIRM** [7014-97]
R. G. Probst, J. R. George, P. N. Daly, K. Don, M. Ellis, National Optical Astronomy Observatory (United States)

- 7014 2T **ANIR: Atacama near infrared camera for Paschen α imaging** [7014-98]
 K. Motohara, N. Mitani, S. Sako, Y. K. Uchimoto, K. Toshikawa, Institute of Astronomy, Univ. of Tokyo (Japan); T. Yamamuro, OptCraft (Japan); T. Handa, M. Tanaka, Institute of Astronomy, Univ. of Tokyo (Japan); T. Aoki, Kiso Observatory, Univ. of Tokyo (Japan); M. Doi, K. Kawara, K. Kohno, T. Minezaki, T. Miyata, Institute of Astronomy, Univ. of Tokyo (Japan); T. Soyano, Kiso Observatory, Univ. of Tokyo (Japan); T. Tanabe, Institute of Astronomy, Univ. of Tokyo (Japan); K. Tarusawa, Kiso Observatory, Univ. of Tokyo (Japan); Y. Yoshii, Institute of Astronomy, Univ. of Tokyo (Japan)
- 7014 2V **The FourStar infrared camera** [7014-100]
 S. E. Persson, Observatories of the Carnegie Institution of Washington (United States); R. Barkhouser, Johns Hopkins Univ. (United States); C. Birk, Observatories of the Carnegie Institution of Washington (United States); R. Hammond, A. Harding, Johns Hopkins Univ. (United States); E. R. Koch, Dedicated Micro Systems (United States); J. L. Marshall, P. J. McCarthy, D. Murphy, Observatories of the Carnegie Institution of Washington (United States); J. Orndorff, G. Scharfstein, Johns Hopkins Univ. (United States); S. A. Shectman, Observatories of the Carnegie Institution of Washington (United States); S. Smee, Johns Hopkins Univ. (United States); A. Uomoto, Observatories of the Carnegie Institution of Washington (United States)
- 7014 2W **Performance of the WIYN high-resolution infrared camera** [7014-101]
 M. Meixner, Space Telescope Science Institute (United States); S. Smee, Johns Hopkins Univ. (United States); R. L. Doering, Space Telescope Science Institute (United States) and Univ. of Illinois, Urbana-Champaign (United States); R. H. Barkhouser, Johns Hopkins Univ. (United States); T. Miller, Space Telescope Science Institute (United States); J. Orndorff, Johns Hopkins Univ. (United States); P. Knezek, WIYN Observatory (United States); E. Churchwell, Univ. of Wisconsin, Madison (United States); G. Scharfstein, Johns Hopkins Univ. (United States); J. Percival, Univ. of Wisconsin, Madison (United States); D. Mills, National Optical Astronomy Observatory (United States); C. Corson, WIYN Observatory (United States)
- 7014 2X **Cryogenic tests of bimetallic diamond-turned mirrors for the FRIDA integral field unit** [7014-102]
 C. DeWitt, S. Eikenberry, Univ. of Florida (United States); S. Cuevas Cardona, O. Chapa, C. Espejo, C. Keiman, B. Sanchez, Instituto de Astronomia, Univ. Nacional Autonoma de Mexico (Mexico)
- 7014 2Y **A wide-field near-infrared camera and spectrograph for the Mt. Abu 1.2 m telescope** [7014-103]
 B. Anandarao, Physical Research Lab., Ahmedabad (India); E. H. Richardson, Univ. of Victoria (Canada); A. Chakraborty, Physical Research Lab., Ahmedabad (India); H. Epps, Lick Observatories, Univ. of California, Santa Cruz (United States)
- 7014 2Z **MOSFIRE: a multi-object near-infrared spectrograph and imager for the Keck Observatory** [7014-104]
 I. S. McLean, Univ. of California, Los Angeles (United States); C. C. Steidel, K. Matthews, Caltech Optical Observatories, California Institute of Technology (United States); H. Epps, UCO/Lick Observatory, Univ. of California, Santa Cruz (United States); S. M. Adkins, W. M. Keck Observatory (United States)

- 7014 30 **Design options for high-performance high-resolution near-infrared spectrographs** [7014-105]
K. H. Hinkle, R. Joyce, M. Liang, G. Muller, National Optical Astronomy Observatory (United States)
- 7014 32 **Designing the optimal semi-warm NIR spectrograph for SALT via detailed thermal analysis** [7014-107]
M. J. Wolf, A. I. Sheinis, Univ. of Wisconsin, Madison (United States); M. P. Mulligan, Space Science and Engineering Ctr. (United States); J. P. Wong, Paradigm Design Inc. (United States); A. Rogers, IceCube Neutrino Observatory (United States)
- 7014 33 **Warm infrared echelle spectrograph (WINERED): testing of optical components and performance evaluation of the optical system** [7014-108]
C. Yasui, S. Kondo, Institute of Astronomy, Univ. of Tokyo (Japan); Y. Ikeda, Photocoding (Japan); A. Minami, K. Motohara, N. Kobayashi, Institute of Astronomy, Univ. of Tokyo (Japan)
- 7014 34 **High resolution spectrograph unit (HRU) for the SUBARU/IRCS** [7014-109]
H. Terada, Subaru Telescope, National Astronomical Observatory of Japan (United States); I. Yuji, Photocoding (Japan); N. Kobayashi, C. Yasui, Institute of Astronomy, Univ. of Tokyo (Japan); T.-S. Pyo, T. Usuda, M. Hayashi, Subaru Telescope, National Astronomical Observatory of Japan (United States); H. Kawakita, Kyoto Sangyo Univ. (Japan)
- 7014 35 **FLEX – the first light explorer: a pathfinder instrument for fibre Bragg grating OH suppression** [7014-110]
A. J. Horton, S. C. Ellis, Anglo-Australian Observatory (Australia); J. Bland-Hawthorn, Univ. of Sydney (Australia); R. Haynes, A. J. McGrath, Anglo-Australian Observatory (Australia)
- 7014 36 **Straylight considerations for NIR spectrographs** [7014-111]
M. Ferlet, Rutherford Appleton Lab. (United Kingdom)
- 7014 37 **ISLE: near-infrared imager/spectrograph for the 1.88m Telescope at Okayama Astrophysical Observatory** [7014-112]
K. Yanagisawa, K. Okita, Y. Shimizu, M. Otsuka, S. Nagayama, I. Iwata, S. Ozaki, M. Yoshida, Okayama Astrophysical Observatory, National Astronomical Observatory of Japan (Japan); H. Nakaya, A. Tajitsu, Subaru Telescope, National Astronomical Observatory of Japan (United States); S. Okumura, Japan Space Guard Association (Japan); T. Yamamuro, OptCraft (Japan)
- 7014 38 **OSIRIS optical integration and tests** [7014-113]
J. L. Rasilla, R. López López, Instituto de Astrofísica de Canarias (Spain); C. Tejada, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico)
- 7014 3A **Control system for the AMICA infrared camera** [7014-115]
F. Bortoletto, D. Magrin, C. Bonoli, M. D'Alessandro, D. Fantinel, INAF - Osservatorio Astronomico di Padova (Italy); G. Di Rico, C. Giuliani, A. di Cianno, INAF - Osservatorio Astronomico di Teramo (Italy); L. Corcione, INAF - Osservatorio Astronomico di Torino (Italy)

- 7014 3B **Detector upgrade for FLAMES: GIRAFFE gets red eyes** [7014-116]
 C. Melo, M. Downing, European Southern Observatory (Germany); P. Jorden, e2v technologies (United Kingdom); L. Pasquini, S. Deiries, European Southern Observatory (Germany); A. Kelt, e2v technologies (United Kingdom); D. Naef, European Southern Observatory (Chile); R. Hanuschik, R. Palsa, European Southern Observatory (Germany); R. Castillo, E. Peña, E. Bendek, M. Gieles, European Southern Observatory (Chile)
- 7014 3C **Characterization and testing of FLAMINGOS-2: the Gemini facility near-infrared multi-object spectrometer and wide-field imager** [7014-117]
 S. N. Raines, S. S. Eikenberry, R. M. Bandyopadhyay, J. A. Julian, K. T. Hanna, C. D. Warner, R. E. Julian, J. G. Bennett, C. N. DeWitt, S. Frommeyer, A. Gonzalez, M. D. Herlevich, C. Murphey, Univ. of Florida (United States)
- 7014 3E **SPHERE IFS: the spectro differential imager of the VLT for exoplanets search** [7014-119]
 R. U. Claudi, INAF - Osservatorio Astronomico di Padova (Italy); M. Turatto, INAF - Osservatorio Astrofisico di Catania (Italy); R. G. Gratton, J. Antichi, M. Bonavita, INAF - Osservatorio Astronomico di Padova (Italy); P. Bruno, INAF - Osservatorio Astrofisico di Catania (Italy); E. Cascone, INAF - Osservatorio Astronomico di Capodimonte (Italy); V. De Caprio, INAF - IASF sezione di Milano (Italy); S. Desidera, E. Giro, D. Mesa, INAF - Osservatorio Astronomico di Padova (Italy); S. Scuderi, INAF - Osservatorio Astrofisico di Catania (Italy); K. Dohlen, Lab. d'Astrophysique de Marseille (France); J. L. Beuzit, P. Puget, Lab. d'Astrophysique de l'Observatoire de Grenoble (France)
- 7014 3F **SPHERE ZIMPOL: overview and performance simulation** [7014-120]
 C. Thalmann, H. M. Schmid, Institute of Astronomy, ETH Zürich (Switzerland); A. Boccaletti, LESIA, Observatoire de Paris (France); D. Mouillet, LAOG, CNRS, Univ. J. Fourier (France); K. Dohlen, LAM, CNRS, Univ. de Provence (France); R. Roelfsema, NOVA-ASTRON (Netherlands); M. Carillet, UNS/CNRS/OCA (France); D. Gisler, Institute of Astronomy, ETH Zürich (Switzerland); J.-L. Beuzit, LAOG, CNRS, Univ. J. Fourier (France); M. Feldt, Max-Planck-Institut für Astronomie (Germany); R. Gratton, INAF - Osservatorio Astronomico di Padova (Italy); F. Joos, Institute of Astronomy, ETH Zürich (Switzerland); C. U. Keller, Sterrekundig Instituut Utrecht (Netherlands); J. Kragt, J. H. Pragt, NOVA-ASTRON (Netherlands); P. Puget, LAOG, CNRS, Univ. J. Fourier (France); F. Rigal, NOVA-ASTRON (Netherlands); F. Snik, Sterrekundig Instituut Utrecht (Netherlands); R. Waters, Astronomical Institute Anton Pannekoek (Netherlands); F. Wildi, Observatoire Astronomique de l'Univ. de Genève (Switzerland)
- 7014 3G **SPHERE-IFS arm: a new concept of Nasmyth II generation instrumentation for ESO-VLT** [7014-121]
 V. De Caprio, INAF - Istituto di Astrofisica Spaziale e Fisica Cosmica (Italy); P. Bruno, INAF - Astrophysical Observatory of Catania (Italy); E. Cascone, INAF - Astronomical Observatory of Napoli (Italy); S. Scuderi, INAF - Astrophysical Observatory of Catania (Italy); R. Claudi, R. G. Gratton, E. Giro, J. Antichi, S. Desidera, INAF - Astronomical Observatory of Padova (Italy); M. Tintori, Politecnico di Milano (Italy); D. Mesa, INAF - Astronomical Observatory of Padova (Italy); E. Stadler, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); M. Turatto, INAF-Astrophysical Observatory of Catania (Italy); J. L. Beuzit, Lab. d'Astrophysique de l'Observatoire de Grenoble (France)

- 7014 3H **SPHERE IFS optical concept description and design overview** [7014-122]
 J. Antichi, R. G. Gratton, R. U. Claudi, E. Giro, D. Mesa, S. Desidera, INAF - Osservatorio Astronomico di Padova (Italy); S. Scuderi, P. Bruno, M. Turatto, INAF - Osservatorio Astrofisico di Catania (Italy); E. Cascone, INAF - Osservatorio Astronomico di Napoli (Italy); V. De Caprio, INAF - IASF sezione di Milano (Italy); J.-L. Beuzit, P. Puget, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); K. Dohlen, Lab. d'Astrophysique de Marseille (France)
- 7014 3I **Frame combination techniques for ultra-high-contrast imaging** [7014-123]
 J. C. Carson, M. Feldt, Max-Planck-Institut für Astronomie (Germany); S. Desidera, Osservatorio Astronomico di Padova (Italy); M. Langlois, Lab. d'Astrophysique de Marseille (France); F. Joos, Institut für Astronomie, ETH Zürich (Switzerland); D. Mouillet, J.-L. Beuzit, Lab. d'Astrophysique de l'Observatoire de Grenoble (France)
- 7014 3J **Apodized Lyot coronagraph for VLT-SPHERE: laboratory tests and performances of a first prototype in the visible** [7014-124]
 G. Guerri, S. Robbe-Dubois, J.-B. Daban, L. Abe, R. Douet, P. Bendjoya, F. Vakili, M. Carillet, Lab. A.H. Fizeau, CNRS, Univ. de Nice Sophia-Antipolis (France); J.-L. Beuzit, P. Puget, Lab. d'Astrophysique de l'Observatoire de Grenoble, CNRS, Univ. J. Fourier (France); K. Dohlen, Lab. d'Astrophysique de Marseille, Observatoire Astronomique de Marseille Provence (France); D. Mouillet, Lab. d'Astrophysique de l'Observatoire de Grenoble, CNRS, Univ. J. Fourier (France)
- 7014 3K **BIGRE: a new double microlens array for the integral field spectrograph of SPHERE** [7014-125]
 E. Giro, R. U. Claudi, J. Antichi, INAF - Osservatorio Astronomico di Padova (Italy); P. Bruno, INAF - Osservatorio Astrofisico di Catania (Italy); E. Cascone, INAF - Osservatorio Astronomico di Capodimonte (Italy); V. De Caprio, INAF - IASF sezione di Milano (Italy); S. Desidera, R. G. Gratton, D. Mesa, INAF - Osservatorio Astronomico di Padova (Italy); S. Scuderi, M. Turatto, INAF - Osservatorio Astrofisico di Catania (Italy); J. L. Beuzit, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); K. Dohlen, Lab. d'Astrophysique de Marseille (France); P. Puget, Lab. d'Astrophysique de l'Observatoire de Grenoble (France)
- 7014 3L **The infra-red dual imaging and spectrograph for SPHERE: design and performance** [7014-126]
 K. Dohlen, M. Langlois, M. Saisse, L. Hill, A. Origine, M. Jacquet, C. Fabron, J.-C. Blanc, M. Llored, M. Carle, C. Moutou, A. Vigan, Lab. d'Astrophysique de Marseille, CNRS, Univ. de Provence (France); A. Boccaletti, Lab. d'Etudes Spatiales et d'Instrumentation en Astrophysique (France); M. Carillet, Observatoire de la Côte d'Azur, CNRS, Univ. Nice Sophia Antipolis (France); D. Mouillet, J.-L. Beuzit, Lab. d'Astrophysique de l'Observatoire de Grenoble, CNRS, Univ. Joseph Fourier (France)

- 7014 3M **Calibration and data reduction for planet detection with SPHERE-IFS** [7014-127]
 S. Desidera, R. Gratton, R. Claudi, J. Antichi, D. Mesa, INAF - Osservatorio Astronomico di Padova (Italy); M. Turatto, P. Bruno, INAF - Osservatorio Astrofisico di Catania (Italy); E. Cascone, INAF - Osservatorio Astronomico di Napoli (Italy); V. De Caprio, INAF - IASF Sezione di Milano (Italy); E. Giro, INAF - Osservatorio Astronomico di Padova (Italy); S. Scuderi, INAF - Osservatorio Astrofisico di Catania (Italy); M. Feldt, A. Pavlov, O. Moeller-Nilsson, Max-Planck-Institut für Astronomie (Germany); K. Dohlen, Lab. d'Astrophysique de Marseille (France); J. L. Beuzit, D. Mouillet, P. Puget, Lab. d'Astrophysique de l'Observatoire de Grenoble (France); F. Wildi, Observatoire Astronomique de l'Univ. de Genève (Switzerland)
- 7014 3N **High efficiency near infrared spectrometer for zodiacal light spectral study** [7014-128]
 A. S. Kutyrev, R. Arendt, CRESST/Univ. of Maryland/NASA Goddard Space Flight Ctr. (United States); E. Dwek, S. H. Moseley, NASA Goddard Space Flight Ctr. (United States); D. Rapchun, GST/NASA Goddard Space Flight Ctr. (United States); R. F. Silverberg, NASA Goddard Space Flight Ctr. (United States)
- 7014 3P **KMOS housekeeping electronics and its functions** [7014-130]
 N. Bezawada, B. Woodward, P. Rees, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom)
- 7014 3Q **Airborne measurements in the longwave infrared using an imaging hyperspectral sensor** [7014-131]
 J.-P. Allard, M. Chamberland, V. Farley, F. Marcotte, M. Rolland, A. Vallières, A. Villemaire, Telops Inc. (Canada)
- 7014 3R **AAOmicron: a wide-field near-infrared multi-object spectrograph concept for the AAT** [7014-132]
 R. Haynes, S. Ellis, P. Gillingham, A. Horton, W. Rambold, G. Smith, Anglo-Australian Observatory (Australia)

Part Three

- 7014 3S **LUCIFER status report: summer 2008** [7014-133]
 H. Mandel, W. Seifert, ZAH, Landessternwarte Heidelberg (Germany); R. Hofmann, Max-Planck-Institut für extraterrestrische Physik (Germany); M. Jütte, Astronomisches Institut der Ruhr Univ. Bochum (Germany); R. Lenzen, Max-Planck-Institut für Astronomie (Germany); N. Ageorges, Max-Planck-Institut für extraterrestrische Physik (Germany); D. Bomans, Astronomisches Institut der Ruhr Univ. Bochum (Germany); P. Buschkamp, Max-Planck-Institut für extraterrestrische Physik (Germany); R.-J. Dettmar, Astronomisches Institut der Ruhr Univ. Bochum (Germany); C. Feiz, ZAH, Landessternwarte Heidelberg (Germany); H. Gemperlein, Max-Planck-Institut für extraterrestrische Physik (Germany); A. Germeroth, L. Geuer, J. Heidt, ZAH, Landessternwarte Heidelberg (Germany); V. Knierim, Astronomisches Institut der Ruhr Univ. Bochum (Germany); W. Laun, M. Lehmitz, U. Mall, Max-Planck-Institut für Astronomie (Germany); P. Müller, ZAH, Landessternwarte Heidelberg (Germany); V. Naranjo, Max-Planck-Institut für Astronomie (Germany); K. Polsterer, Astronomisches Institut der Ruhr Univ. Bochum (Germany); A. Quirrenbach, L. Schöffner, F. Schwind, ZAH, Landessternwarte Heidelberg (Germany); P. Weiser, Fachhochschule für Technik und Gestaltung Mannheim (Germany); H. Weisz, Ingenieurbüro für den Maschinenbau München (Germany)

- 7014 3U **Performances of the cryogenic system of GIANO-TNG** [7014-135]
I. Mochi, INAF - Osservatorio Astrofisico di Arcetri (Italy); E. Oliva, INAF - Osservatorio Astrofisico di Arcetri (Italy) and Telescopio Nazionale Galileo (Italy); L. Origlia, INAF - Osservatorio Astronomico di Bologna (Italy); C. Baffa, V. Biliotti, G. Falcini, E. Giani, INAF - Osservatorio Astrofisico di Arcetri (Italy); M. Gonzalez, Telescopio Nazionale Galileo (Italy); E. Rossetti, INAF - Osservatorio Astronomico di Bologna (Italy); M. Sozzi, INAF - Osservatorio Astrofisico di Arcetri (Italy); M. Liffredo, G. Roveta, Criotec Impianti s.r.l. (Italy); L. Roccia, Omicron Sistemi (Italy)
- 7014 3V **Characterization of the HCl-HBr-HI gas absorption cell for GIANO-TNG** [7014-136]
F. D'Amato, S. Viciani, CNR - Istituto Nazionale di Ottica Applicata (Italy); E. Oliva, Osservatorio Astrofisico di Arcetri (Italy); L. Origlia, Osservatorio Astronomico di Bologna (Italy); I. Mochi, Osservatorio Astrofisico di Arcetri (Italy)
- 7014 3W **Integration, commissioning, and performance of the UK FMOS spectrograph** [7014-137]
G. B. Dalton, Rutherford Appleton Lab. (United Kingdom) and Univ. of Oxford (United Kingdom); I. J. Lewis, Univ. of Oxford (United Kingdom); I. A. J. Tosh, Rutherford Appleton Lab. (United Kingdom); C. Blackburn, Univ. of Durham (United Kingdom); D. G. Bonfield, NASA Goddard Space Flight Ctr. (United States); C. B. Brooks, A. R. Holmes, H. Lee, Univ. of Oxford (United Kingdom); T. R. Froud, Rutherford Appleton Lab. (United Kingdom); M. Akiyama, N. Tamura, N. Takato, Subaru Telescope (United States)
- 7014 3X **X-shooter physical model** [7014-139]
P. Bristow, F. Kerber, European Southern Observatory (Germany); M. R. Rosa, European Space Agency (Germany); J. Vernet, European Southern Observatory (Germany); P. Goldoni, Lab. Astroparticule et Cosmologie (France) and Service d'Astrophysique, DSM/DAPNIA/SAP, CEA-Saclay (France); P. Spanò, INAF - Osservatorio Astronomico di Brera (Italy); A. Modigliani, European Southern Observatory (Germany)
- 7014 3Y **Wavelength calibration sources for the near infrared arm of X-shooter** [7014-140]
F. Kerber, F. Saitta, P. Bristow, J. Vernet, European Southern Observatory (Germany)
- 7014 3Z **X-shooter – backbone and UV-blue and visible spectrographs: final AIV and measured performances** [7014-141]
P. K. Rasmussen, Niels Bohr Institute (Denmark); F. M. Zerbi, INAF - Osservatorio Astronomico di Brera (Italy) and European Southern Observatory (Germany); H. Dekker, J. Vernet, European Southern Observatory (Germany); J. J. Andersen, Niels Bohr Institute (Denmark); V. De Caprio, INAF – Istituto di Astrofisica Spaziale e Fisica Cosmica (Italy); P. Dimarcantonio, INAF - Osservatorio Astronomico di Trieste (Italy); S. D'Odorico, J.-L. Lizon, C. Lucuix, European Southern Observatory (Germany); N. Michaelsen, Niels Bohr Institute (Denmark); E. Molinari, INAF - Osservatorio Astronomico di Brera (Italy); P. Nørregaard, Niels Bohr Institute (Denmark); A. Riva, M. Riva, INAF - Osservatorio Astronomico di Brera (Italy); P. Santin, INAF - Osservatorio Astronomico di Trieste (Italy); A. N. Sørensen, Niels Bohr Institute (Denmark); P. Spanò, INAF - Osservatorio Astronomico di Brera (Italy); D. Wistisen, Niels Bohr Institute (Denmark)
- 7014 40 **A new measurement method of profile tolerance for the LAMOST focal plane** [7014-142]
Z. Zhou, Y. Jin, C. Zhai, X. Xing, Univ. of Science and Technology of China (China)

- 7014 41 **Study on measurement error of fiber space coordinate detection using an area CCD camera for the LAMOST positioning system** [7014-143]
Y. Jin, X. Xing, C. Zhai, Z. Zhou, Univ. of Science and Technology of China (China)
- 7014 42 **The testing scheme for the LAMOST focal plane plate** [7014-144]
Z. Zhou, Y. Jin, J. Wang, X. Li, X. Xing, Univ. of Science and Technology of China (China)
- 7014 43 **Flat field for LAMOST** [7014-145]
H. Zhang, Z. Bai, National Astronomical Observatories (China)
- 7014 44 **A new method for measuring the position of the end of optical fibers for LAMOST** [7014-146]
Y. Gu, C. Zhai, X. Xing, J. Chu, Univ. of Science and Technology of China (China)
- 7014 46 **MicroLux: high-precision timing of high-speed photometric observations** [7014-148]
F. Hormuth, Max-Planck-Institut für Astronomie (Germany)
- 7014 47 **FastCam: a new lucky imaging instrument for medium-sized telescopes** [7014-149]
A. Oscoz, R. Rebolo, R. López, Instituto de Astrofísica de Canarias (Spain); A. Pérez-Garrido, Univ. Politécnica de Cartagena (Spain); J. A. Pérez, S. Hildebrandt, L. F. Rodríguez, J. J. Piqueras, Instituto de Astrofísica de Canarias (Spain); I. Villó, Univ. Politécnica de Cartagena (Spain); J. M. González, Gran Telescopio Canarias (Spain); R. Barrena, Instituto de Astrofísica de Canarias (Spain); G. Gómez, Gran Telescopio Canarias (Spain); A. García, P. Montañés, A. Rosenberg, E. Cadavid, A. Calcines, Instituto de Astrofísica de Canarias (Spain); A. Díaz-Sánchez, Univ. Politécnica de Cartagena (Spain); R. Kohley, Gran Telescopio Canarias (Spain); Y. Martín, J. Peñate, V. Sánchez, Instituto de Astrofísica de Canarias (Spain)
- 7014 48 **AstralLux: the Calar Alto lucky imaging camera** [7014-150]
F. Hormuth, S. Hippler, W. Brandner, K. Wagner, T. Henning, Max-Planck-Institut für Astronomie (Germany)
- 7014 49 **Real-time lucky imaging in FastCam project** [7014-151]
L. F. Rodríguez Ramos, J. J. Piqueras Meseguer, Y. Martín Hernando, A. Oscoz, R. Rebolo, Instituto de Astrofísica de Canarias (Spain)
- 7014 4A **The shutter and filter exchanger system of Hyper Suprime-Cam** [7014-153]
S.-Y. Wang, Institute of Astronomy and Astrophysics, Academia Sinica (Taiwan); E. J.-Y. Liaw, Chung Shan Institute of Science and Technology (Taiwan); Y.-D. Huang, Institute of Astronomy and Astrophysics, Academia Sinica (Taiwan); C.-F. Chiu, D.-Z. Jeng, Chung Shan Institute of Science and Technology (Taiwan); Y. Doi, F. Uragachi, Y. Komiyama, S. Miyazaki, Subaru Telescope, National Observatory of Japan (United States)
- 7014 4B **EDiFiSE: equalized and diffraction-limited field spectrograph experiment** [7014-154]
B. García-Lorenzo, J. J. Fuensalida, M. A. C. Rodríguez-Hernández, A. Alonso, M. Barreto, F. Gracia-Temich, Y. Martín, L. F. Rodríguez, T. Viera, Instituto de Astrofísica de Canarias (Spain); Y. Padilla, Instituto de Astrofísica de Canarias (Spain) and Univ. de La Laguna (Spain); A. Fernández, J. F. M. Escobar-Romero, Instituto de Astrofísica de Canarias (Spain)

- 7014 4C **Testing commercial variable fiber attenuators and lenslet arrays for equalized integral field spectroscopy applications** [7014-155]
 F. Gracia-Temich, B. García-Lorenzo, Instituto de Astrofísica de Canarias (Spain);
 Y. Padilla-Michel, Instituto de Astrofísica de Canarias (Spain) and Univ. de La Laguna (Spain); J. F. M. Escobar-Romero, J. J. Fuensalida, M. A. C. Rodríguez-Hernández,
 J. L. Rasilla, Instituto de Astrofísica de Canarias (Spain); C. Kuckein, Instituto de Astrofísica de Canarias (Spain) and Univ. de La Laguna (Spain); E. López-Rodríguez, Univ. de La Laguna (Spain)
- 7014 4D **Multi-object medium resolution optical spectroscopy at the E-ELT** [7014-156]
 P. Spanò, INAF-Osservatorio Astronomico di Brera (Italy); P. Bonifacio, CIFIST Marie Curie Excellence Team (France), GEPI, Observatoire de Paris, CNRS, Univ. Paris Diderot (France), and INAF-Osservatorio Astronomico di Trieste (Italy)
- 7014 4E **A novel design of a fibre-fed high-resolution spectrograph for WFMOS** [7014-157]
 H. Lee, Univ. of Oxford (United Kingdom); G. B. Dalton, Univ. of Oxford (United Kingdom) and Rutherford Appleton Lab. (United Kingdom); I. A. J. Tosh, Rutherford Appleton Lab. (United Kingdom)
- 7014 4F **SIDE: a fiber fed spectrograph for the 10.4 m Gran Telescopio Canarias (GTC)** [7014-158]
 F. Prada, M. Azzaro, O. Rabaza, J. Sánchez, M. Ubierna, Instituto de Astrofísica de Andalucía (Spain)
- 7014 4G **PRL advanced radial-velocity all-sky search (PARAS): an efficient fiber-fed spectrograph for planet searches** [7014-159]
 A. Chakraborty, Physical Research Lab., Navarangpura (India); E. H. Richardson, Univ. of Victoria (Canada); S. Mahadevan, Univ. of Florida (United States)
- 7014 4H **BESO: first light at the high-resolution spectrograph for the Hexapod-Telescope** [7014-160]
 I. Steiner, Astronomisches Institut der Ruhr-Univ. Bochum (Germany); O. Stahl, W. Seifert, ZAH, Landessternwarte Heidelberg (Germany); R. Chini, Astronomisches Institut der Ruhr-Univ. Bochum (Germany); A. Quirrenbach, ZAH, Landessternwarte Heidelberg (Germany)
- 7014 4I **Coupling LBT's double pupil into optical fibers** [7014-161]
 F. Müller Sánchez, F. Eisenhauer, M. Haug, Max-Planck-Institute for extraterrestrial Physics (Germany); C. Gál, A. Krabbe, Univ. of Cologne (Germany); T. M. Herbst, Max-Planck-Institute for Astronomy (Germany)
- 7014 4J **Concepts for a high-resolution multi-object spectrograph for galactic archeology on the Anglo-Australian Telescope** [7014-162]
 S. C. Barden, Anglo-Australian Observatory (Australia); J. Bland-Hawthorn, The Univ. of Sydney (Australia); V. Churilov, S. Ellis, T. Farrell, Anglo-Australian Observatory (Australia); K. C. Freeman, Research School of Astronomy & Astrophysics, Mount Stromlo Observatory (Australia); R. Haynes, A. Horton, Anglo-Australian Observatory (Australia); D. J. Jones, Prime Optics (Australia); G. Knight, Sinclair Knight Merz (Australia); S. Miziarski, W. Rambold, G. Smith, L. Waller, Anglo-Australian Observatory (Australia)
- 7014 4K **2dF grows up: Echidna for the AAT** [7014-163]
 A. McGrath, S. Barden, S. Miziarski, W. Rambold, G. Smith, Anglo-Australian Observatory (Australia)

- 7014 4L **Wide-field one-shot optical polarimeter: HOWPol** [7014-164]
 K. S. Kawabata, Hiroshima Astrophysical Science Ctr., Hiroshima Univ. (Japan); O. Nagae, Hiroshima Univ. (Japan); S. Chiyonobu, NEC System Technologies, Ltd. (Japan); H. Tanaka, Hiroshima Univ. (Japan); H. Nakaya, Subaru Telescope, National Astronomical Observatory of Japan (United States); M. Suzuki, Toyota Technical Development Corp. (Japan); Y. Kamata, S. Miyazaki, National Astronomical Observatory of Japan (Japan); K. Hiragi, H. Miyamoto, M. Yamanaka, A. Arai, Hiroshima Univ. (Japan); T. Yamashita, M. Uemura, T. Ohsugi, M. Isogai, Hiroshima Astrophysical Science Ctr., Hiroshima Univ. (Japan); Y. Ishitobi, Hiroshima Univ. (Japan); S. Sato, Nagoya Univ. (Japan)
- 7014 4M **Long slit spectroscopy for exoplanet characterization in SPHERE** [7014-165]
 A. Vigan, M. Langlois, C. Moutou, K. Dohlen, Lab. d'Astrophysique de Marseille (France)
- 7014 4N **Proposed instrumentation for PILOT** [7014-166]
 W. Saunders, P. Gillingham, A. McGrath, R. Haynes, Anglo-Australian Observatory (Australia); J. Storey, J. Lawrence, M. Burton, Univ. of New South Wales (Australia); C. Jenkins, Research School of Astronomy and Astrophysics, Australian National Univ. (Australia); A. Mora, Univ. Autonoma de Madrid (Spain)
- 7014 4P **Verification and acceptance tests of the PRIMA DDL optics** [7014-168]
 P. Bizenberger, H. Baumeister, U. Graser, T. Henning, N. Krause, R. Launhardt, V. Naranjo, Max Planck Institute for Astronomy (Germany); D. Queloz, Observatoire Astronomique de l'Univ. de Genève (Switzerland); A. Quirrenbach, ZAH Landessternwarte Königstuhl (Germany)
- 7014 4Q **The WIYN One Degree Imager: an update** [7014-169]
 D. R. Harbeck, Univ. of Wisconsin, Madison (United States) and WIYN Observatory (United States); G. H. Jacoby, G. Muller, WIYN Observatory (United States); D. Sawyer, National Optical Astronomy Observatory (United States); C. Harmer, A. Yeatts, WIYN Observatory (United States); J. Cavin, Univ. of Wisconsin, Madison (United States); C. Corson, WIYN Observatory (United States)
- 7014 4R **Mechanical design of the WIYN One Degree Imager (ODI)** [7014-170]
 G. P. Muller, WIYN Observatory (United States); D. Harbeck, Univ. of Wisconsin, Madison (United States) and WIYN Observatory (United States); G. H. Jacoby, C. Harmer, A. Yeatts, WIYN Observatory (United States); D. Blanco, WIYN Observatory (United States) and Optical Sciences Ctr., Univ. of Arizona (United States); J. Cavin, Univ. of Wisconsin, Madison (United States); D. Sawyer, National Optical Astronomy Observatory (United States)
- 7014 4S **The WIYN One Degree Imager optical design** [7014-171]
 G. H. Jacoby, C. Harmer, WIYN Observatory (United States); D. Harbeck, Univ. of Wisconsin, Madison (United States) and WIYN Observatory (United States); G. Muller, D. Blanco, J. Keyes, WIYN Observatory (United States); J. Cavin, Univ. of Wisconsin, Madison (United States) and WIYN Observatory (United States)
- 7014 4T **The Large Binocular Camera: description and performances of the first binocular imager** [7014-172]
 R. Speziali, A. Di Paola, E. Giallongo, F. Pedichini, INAF - Osservatorio Astronomico di Roma (Italy); R. Ragazzoni, INAF - Osservatorio Astronomico di Padova (Italy); V. Testa, INAF - Osservatorio Astronomico di Roma (Italy); A. Baruffolo, INAF - Osservatorio Astronomico di Padova (Italy); C. De Santis, INAF - Osservatorio Astronomico di Roma (Italy);

E. Diolaiti, INAF - Osservatorio Astronomico di Bologna (Italy); J. Farinato, INAF - Osservatorio Astronomico di Padova (Italy); A. Fontana, S. Gallozzi, INAF - Osservatorio Astronomico di Roma (Italy); F. Gasparo, INAF - Osservatorio Astronomico di Trieste (Italy); G. Gentile, INAF - Osservatorio Astronomico di Padova (Italy); A. Grazian, INAF - Osservatorio Astronomico di Roma (Italy); P. Manzato, F. Pasian, R. Smareglia, INAF - Osservatorio Astronomico di Trieste (Italy); E. Vernet, INAF - Osservatorio Astronomico di Padova (Italy)

- 7014 4U **LBT report activities concerning the optomechanics alignment of the Large Binocular Camera's Red Channel** [7014-173]
G. Gentile, R. Ragazzoni, INAF - Osservatorio Astronomico di Padova (Italy); E. Diolaiti, INAF - Osservatorio Astronomico di Bologna (Italy); J. Farinato, INAF - Osservatorio Astronomico di Padova (Italy); J. Hill, R. Bertam, Large Binocular Telescope Observatory, Univ. of Arizona (United States); A. Baruffolo, INAF - Osservatorio Astronomico di Padova (Italy)
- 7014 4V **Hyper Suprime-Cam: camera dewar** [7014-174]
Y. Komiyama, S. Miyazaki, S. Kawanomoto, T. Morokuma, National Astronomical Observatory of Japan (Japan); H. Nakaya, H. Furusawa, Y. Tanaka, Subaru Telescope (United States)
- 7014 4W **Hyper Suprime-Cam: autoguider and Shack-Hartmann systems** [7014-175]
T. Morokuma, Y. Komiyama, S. Miyazaki, National Astronomical Observatory of Japan (Japan); H. Nakaya, H. Furusawa, D. Tomono, Subaru Telescope, National Astronomical Observatory of Japan (United States); S. Kawanomoto, National Astronomical Observatory of Japan (Japan); Y. Tanaka, Subaru Telescope, National Astronomical Observatory of Japan (United States)
- 7014 4X **Hyper Suprime-Cam: CCD readout electronics** [7014-176]
H. Nakaya, Subaru Telescope, National Astronomical Observatory of Japan (United States); T. Uchida, H. Miyatake, H. Aihara, The Univ. of Tokyo (Japan); Y. Doi, H. Furusawa, Subaru Telescope, National Astronomical Observatory of Japan (United States); H. Karoji, Y. Kamata, S. Kawanomoto, Y. Komiyama, S. Miyazaki, T. Morokuma, National Astronomical Observatory of Japan (Japan); M. Tanaka, High Energy Accelerator Research Organization (Japan); Y. Tanaka, Subaru Telescope, National Astronomical Observatory of Japan (United States)
- 7014 4Y **The 12K×8K CCD mosaic camera for the Palomar Transient Factory** [7014-177]
G. Rahmer, R. Smith, V. Velur, D. Hale, N. Law, K. Bui, H. Petrie, R. Dekany, California Institute of Technology Optical Observatories (United States)
- 7014 4Z **HIPO data products** [7014-178]
E. W. Dunham, Lowell Observatory (United States); J. L. Elliot, Lowell Observatory (United States) and Massachusetts Institute of Technology (United States); T. A. Bida, P. L. Collins, Lowell Observatory (United States); B. W. Taylor, Institute for Astrophysical Research, Boston Univ. (United States); S. Zoonematkermani, Lowell Observatory (United States)
- 7014 50 **Compact multi-band visible camera for 1m-class fast telescopes** [7014-179]
A. Riva, P. Spanò, INAF - Osservatorio Astronomico di Brera (Italy)

- 7014 51 **SNDICE: a direct illumination calibration experiment at CFHT** [7014-180]
C. Juramy, E. Barrelet, K. Schahmaneche, P. Bailly, W. Bertoli, C. Evrard, P. Ghislain, A. Guimard, J.-F. Huppert, D. Imbault, D. Laporte, H. Lebbolo, P. Repain, R. Sefri, A. Vallereau, D. Vincent, P. Antilogus, P. Asfier, J. Guy, R. Pain, N. Regnault, Lab. de Physique Nucléaire et de Hautes Energies (France); R. Attapatu, T. Benedict, G. Barrick, J.-C. Cuillandre, S. Gajadhar, K. Ho, D. Salmon, Canada-France-Hawaii Telescope Corp. (United States)
- 7014 52 **An atmospheric corrector to work with FastCam at William Herschel Telescope** [7014-181]
R. López, A. Calcines, Instituto de Astrofísica de Canarias (Spain)
- 7014 53 **The Keck-I Cassegrain ADC** [7014-182]
A. C. Phillips, J. Miller, D. Cowley, V. Wallace, UCO/Lick Observatory, Univ. of California, Santa Cruz (United States)
- 7014 54 **The MagE spectrograph** [7014-183]
J. L. Marshall, Observatories of the Carnegie Institution of Washington (United States); S. Burles, Massachusetts Institute of Technology (United States) and Kavli Institute for Astrophysics and Space Research, Massachusetts Institute of Technology (United States); I. B. Thompson, S. A. Shectman, Observatories of the Carnegie Institution of Washington (United States); B. C. Bigelow, UCO Lick Observatory, Univ. of California, Santa Cruz (United States); G. Burley, C. Birk, J. Estrada, Observatories of the Carnegie Institution of Washington (United States); P. Jones, Las Campanas Observatory (Chile); M. Smith, Massachusetts Institute of Technology (United States) and Kavli Institute for Astrophysics and Space Research, Massachusetts Institute of Technology (United States); V. Kowal, J. Castillo, R. Storts, G. Ortiz, Observatories of the Carnegie Institution of Washington (United States)
- 7014 55 **3D-NTT: a versatile integral field spectro-imager for the NTT** [7014-283]
M. Marcelin, P. Amram, P. Balard, Lab. d'Astrophysique de Marseille, CNRS, Univ. de Provence (France); C. Balkowski, GEPI, Observatoire de Paris, CNRS, Univ. Paris 7 (France); O. Boissin, J. Boulesteix, Lab. d'Astrophysique de Marseille, CNRS, Univ. de Provence (France); C. Carignan, O. Daigle, M.-M. de Denus Baillargeon, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada); B. Epinat, J.-L. Gach, Lab. d'Astrophysique de Marseille, CNRS, Univ. de Provence (France); O. Hernandez, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada); F. Rigaud, GEPI, Observatoire de Paris, CNRS, Univ. Paris 7 (France); P. Vallée, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada)

POSTERS: INSTRUMENTATION TECHNIQUES AND TECHNOLOGIES

- 7014 56 **Commissioning of an integral-field spectro-polarimeter for PMAS** [7014-184]
U. Lemke, Astrophysikalisches Institut Potsdam (Germany) and Humboldt Univ. zu Berlin (Germany); A. Kelz, S. M. Bauer, T. Hahn, E. Popow, M. M. Roth, Astrophysikalisches Institut Potsdam (Germany)
- 7014 57 **Comparison of precipitable water vapour measurements made with an optical echelle spectrograph and an infrared radiometer at Las Campanas Observatory** [7014-185]
R. R. Querel, D. A. Naylor, Univ. of Lethbridge (Canada); J. Thomas-Osip, G. Prieto, Las Campanas Observatory (Chile); A. McWilliam, Observatories of the Carnegie Institution of Washington (United States)

- 7014 58 **Calibration issues for MUSE** [7014-186]
A. Kelz, M. Roth, S. Bauer, J. Gerssen, T. Hahn, P. Weilbacher, Astrophysikalisches Institut Potsdam (Germany); U. Laux, Thüringer Landessternwarte Tautenburg (Germany); M. Loupias, J. Kosmalski, Ctr. de Recherche Astronomique de Lyon (France); R. McDermid, Univ. Leiden (Netherlands); R. Bacon, Ctr. de Recherche Astronomique de Lyon (France)
- 7014 59 **MUSE: feeding and mounting 24 spectrographs** [7014-187]
H. Nicklas, Institut für Astrophysik, Georg-August-Univ. Göttingen (Germany); W. Seifert, Zentrum für Astronomie, Landessternwarte, Königstuhl (Germany); W. Xu, Wenli Xu, Optical System Engineering (Germany); D. Hofmann, C. Köhler, Institut für Astrophysik, Georg-August-Univ. Göttingen (Germany); M. Loupias, Observatoire de Lyon (France)
- 7014 5A **The GlobalJetWatch spectrographs: a fibre-fed spectrograph for small telescopes** [7014-188]
F. J. Clarke, Oxford Astrophysics, Univ. of Oxford (United Kingdom); A. J. Gosling, Oxford Astrophysics, Univ. of Oxford (United Kingdom) and Univ. of Oulu (Finland); S. Doolin, P. Goodall, S. Perez, P. Pattinson, R. Makin, K. M. Blundell, Oxford Astrophysics, Univ. of Oxford (United Kingdom)
- 7014 5B **Optical design of the VLT Coudé path for visible-range instrumentation** [7014-189]
G. Avila, European Southern Observatory (Germany)
- 7014 5C **The PAU camera** [7014-190]
F. J. Castander, Institut de Ciències de l'Espai, CSIC (Spain)
- 7014 5D **HERMES: a high-resolution fiber-fed spectrograph for the Mercator Telescope** [7014-191]
G. Raskin, Mercator Telescope (Spain) and Institut voor Sterrenkunde, Katholieke Univ. Leuven (Belgium); H. Van Winckel, Institut voor Sterrenkunde, Katholieke Univ. Leuven (Belgium)
- 7014 5E **A new two channel high-speed photo-polarimeter (HIPPO) for the SAAO** [7014-192]
S. Potter, D. Buckley, D. O'Donoghue, J. O'Conner, P. Fourie, G. Evans, C. Sass, L. Crause, South African Astronomical Observatory (South Africa); O. W. Butters, A. Norton, The Open Univ. (United Kingdom); K. Mukai, CRESST, NASA Goddard Space Flight Ctr., and Univ. of Maryland, Baltimore County (United States); M. Still, Mullard Space Science Lab., Univ. College London (United Kingdom)
- 7014 5F **MMT-Pol: an adaptive optics optimized 1-5 μ m polarimeter** [7014-193]
C. Packham, Univ. of Florida (United States); T. J. Jones, Univ. of Minnesota (United States)
- 7014 5G **Structure of the spectrograph ESOP** [7014-194]
G. Sierra, A. Farah, J. Gonzalez, M. Pedrayes, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); M. Arroyo, Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); G. Avila, European Southern Observatory (Germany); F. Cobos, E. Colorado, A. Córdova, R. Costero, O. Chapa, J. Echevarria, B. García, F. Garfias, G. Guisa, F. Granados, E. Luna, B. Martínez, R. Michel, F. Murillo, J. Murillo, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); S. Quechol, Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); F. Quiroz, C. Tejada, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico)

- 7014 5H **Slit-mask, acquisition, and guiding zone mechanisms of the ESOPO spectrograph** [7014-195]
M. Pedrayes, J. Gonzalez, E. Luna, F. Quiroz, G. Sierra, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); M. Arroyo, Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); G. Avila, European Southern Observatory (Germany); F. Cobos, E. Colorado, A. Córdova, R. Costero, O. Chapa, J. Echevarria, A. Farah, B. García, F. Garfias, G. Guisa, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); F. Granados, Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); B. Martínez, R. Michel, F. Murillo, J. Murillo, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); S. Quechol, Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); C. Tejada, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico)
- 7014 5I **Two campaigns to compare three turbulence profiling techniques at Las Campanas Observatory** [7014-196]
J. Thomas-Osip, GMT/Las Campanas Observatory (Chile); E. Bustos, Cerro Tololo Inter-American Observatory/AURA Inc. (Chile); M. Goodwin, C. Jenkins, Research School of Astronomy and Astrophysics, The Australian National Univ. (Australia); A. Lambert, The Univ. of New South Wales@Australian Defence Force Academy (Australia); G. Prieto, GMT/Las Campanas Observatory (Chile); A. Tokovinin, Cerro Tololo Inter-American Observatory/AURA Inc. (Chile)
- 7014 5J **On-board calibration monitor for tracking instrument sensitivity** [7014-197]
J. W. Kruk, M. E. Kaiser, S. R. McCandliss, J. Orndorff, R. H. Barkhouser, D. J. Sahnou, Johns Hopkins Univ. (United States); D. J. Benford, NASA Goddard Space Flight Ctr. (United States); R. C. Bohlin, S. E. Deustua, Space Telescope Science Institute (United States); W. V. Dixon, P. D. Feldman, Johns Hopkins Univ. (United States); J. P. Gardner, R. A. Kimble, NASA Goddard Space Flight Ctr. (United States); R. Kurucz, Harvard-Smithsonian Ctr. for Astrophysics (United States); M. Lampton, Space Sciences Lab., Univ. of California, Berkeley (United States); H. W. Moos, Johns Hopkins Univ. (United States); S. Perlmutter, Univ. of California, Berkeley (United States) and Lawrence Berkeley National Lab. (United States); B. J. Rauscher, NASA Goddard Space Flight Ctr. (United States); A. G. Riess, Johns Hopkins Univ. (United States) and Space Telescope Science Institute (United States); B. E. Woodgate, NASA Goddard Space Flight Ctr. (United States); E. L. Wright, Univ. of California, Los Angeles (United States)
- 7014 5K **FMOS: the Fibre Multi-Object Spectrograph: Part VII. Results of PIR engineering run** [7014-199]
M. Kimura, Subaru Telescope, National Astronomical Observatory of Japan (United States); T. Maihara, F. Iwamuro, Kyoto Univ. (Japan); M. Akiyama, N. Tamura, N. Takato, Subaru Telescope, National Astronomical Observatory of Japan (United States); K. Ohta, S. Eto, Kyoto Univ. (Japan)
- 7014 5L **Design and construction of the fibre system for FMOS** [7014-200]
G. J. Murray, G. N. Dodsworth, R. Content, Univ. of Durham (United Kingdom); N. Tamura, Subaru Telescope, National Astronomical Observatory of Japan (United States)
- 7014 5M **NEFER: a high resolution scanning Fabry-Perot spectrograph** [7014-201]
M. Rosado, A. Bernal, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); J. Cepa, Instituto de Astrofísica de Canarias (Spain); L. A. Martínez, A. Iriarte, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico)

7014 5N **GH α FaS: Galaxy H α Fabry-Perot system for the WHT** [7014-202]
C. Carignan, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada), Lab. d'Astrophysique de Marseille, Univ. de Provence (France), and Observatoire d'Astrophysique de l'Univ. de Ouagadougou (Burkina Faso); O. Hernandez, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada); J.-L. Gach, P. Balard, Lab. d'Astrophysique de Marseille, Univ. de Provence (France); M.-M. De Denus-Baillargeon, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada) and Institut Fresnel, CNRS, Univ. Aix Marseille (France); K. Fathi, Stockholm Observatory, AlbaNova Univ. Ctr. (Sweden) and Instituto de Astrofísica de Canarias (Spain); J. Beckman, Instituto de Astrofísica de Canarias (Spain); J. Koulidiati, Observatoire d'Astrophysique de l'Univ. de Ouagadougou (Burkina Faso)

7014 5P **Stabilized-speckle integral field spectroscopy: SPIFS** [7014-204]
S. S. Eikenberry, M. Keremedjiev, Univ. of Florida (United States); J. C. Carson, Max-Planck-Institut für Astronomie (Germany)

Part Four

7014 5Q **SPIFS performance simulations: achieving diffraction-limited spatial resolutions for spectroscopy** [7014-205]
M. Keremedjiev, S. S. Eikenberry, Univ. of Florida (United States); J. C. Carson, Max-Planck-Institut für Astronomie (Germany)

7014 5R **Visitor instruments in the ESO Very Large Telescope Observatory in Paranal** [7014-206]
P. Robert, VLT Observatory, European Southern Observatory (Chile)

7014 5S **New read-out electronics concept for visual and infrared detector arrays in astronomical instrumentation** [7014-207]
K. Wagner, U. Mall, J. Ramos, R. Klein, Max-Planck-Institut für Astronomie (Germany)

7014 5T **Results of X-shooter data reduction software on laboratory frames** [7014-208]
P. Goldoni, Lab. AstroParticle et Cosmologie (France); F. Royer, GEPI, Observatoire de Paris-Meudon (France); M. Horrobin, Univ. of Amsterdam (Netherlands); P. François, GEPI, Observatoire de Paris-Meudon (France); L. Guglielmi, Lab. AstroParticle et Cosmologie (France); R. Haigron, GEPI, Observatoire de Paris-Meudon (France); J. Vernet, A. Modigliani, P. Bristow, European Southern Observatory (Germany)

7014 5U **Wavelength calibration sources for instruments on extremely large telescopes** [7014-209]
M. Aldenius, F. Kerber, P. Bristow, European Southern Observatory (Germany); G. Nave, Y. Raichenko, C. J. Sansonetti, National Institute of Standards and Technology (United States)

7014 5V **Selection of wavelength calibration features for automatic format recovery in astronomical spectrographs** [7014-210]
P. Bristow, F. Kerber, European Southern Observatory (Germany)

7014 5X **Investigation of residual blaze functions in slit-based echelle spectrograph** [7014-212]
P. Škoda, Astronomical Institute (Czech Republic); B. Šurlan, S. Tomić, Univ. of Belgrade (Serbia and Montenegro)

- 7014 5Y **ACCESS: absolute color calibration experiment for standard stars** [7014-213]
M. E. Kaiser, J. W. Kruk, S. R. McCandliss, D. J. Sahnou, Johns Hopkins Univ. (United States); B. J. Rauscher, D. J. Benford, NASA Goddard Space Flight Ctr. (United States); R. C. Bohlin, S. E. Deustua, Space Telescope Science Institute (United States); W. V. Dixon, P. D. Feldman, Johns Hopkins Univ. (United States); J. P. Gardner, R. A. Kimble, NASA Goddard Space Flight Ctr. (United States); R. Kurucz, Harvard-Smithsonian Ctr. for Astrophysics (United States); M. Lampton, Space Sciences Lab., Univ. of California, Berkeley (United States); H. W. Moos, Johns Hopkins Univ. (United States); S. Perlmutter, Univ. of California, Berkeley (United States); A. G. Riess, Johns Hopkins Univ. (United States) and Space Telescope Science Institute (United States); B. E. Woodgate, NASA Goddard Space Flight Ctr. (United States); E. L. Wright, Univ. of California, Los Angeles (United States)
- 7014 5Z **A high-resolution spectrograph for the solar telescope GREGOR** [7014-214]
M. Collados, A. Calcines, J. J. Díaz, E. Hernández, R. López, E. Páez, Instituto de Astrofísica de Canarias (Spain)
- 7014 60 **An intelligent modulator system** [7014-216]
G. Luis, J. Harvey, T. Purdy, M. Soukup, P. A. Eliason, National Solar Observatory (United States)
- 7014 61 **An EAGLE with arms: a solution to the design of the adaptive multi-IFU spectrograph EAGLE for the E-ELT** [7014-218]
R. Content, Univ. of Durham (United Kingdom); P. Hastings, UK Astronomy Technology Ctr., Royal Observatory (United Kingdom)
- 7014 62 **Science requirements for EAGLE for the E-ELT** [7014-219]
C. J. Evans, UK Astronomy Technology Ctr., Royal Observatory Edinburgh (United Kingdom); M. D. Lehnert, GEPI, Observatoire de Paris (France); J.-G. Cuby, Lab. d'Astrophysique de Marseille (France); S. L. Morris, A. M. Swinbank, Univ. of Durham (United Kingdom); W. D. Taylor, UK Astronomy Technology Ctr., Royal Observatory Edinburgh (United Kingdom); D. M. Alexander, Univ. of Durham (United Kingdom); N. P. F. Lorente, UK Astronomy Technology Ctr., Royal Observatory Edinburgh (United Kingdom); Y. Clénet, T. Paumard, LESIA, Observatoire de Paris-Meudon (France)
- 7014 63 **Initial opto-thermal modelling of the EAGLE instrument to maximise SNR performance and resulting design considerations** [7014-220]
P. Laporte, F. Chemla, GEPI, Observatoire de Paris, CNRS, UPMC, Univ. Paris Diderot (France); M. Puech, European Southern Observatory (Germany); E. Gendron, LESIA, Observatoire de Paris, CNRS, UPMC, Univ. Paris Diderot (France); P. Hastings, UK Astronomy Technology Ctr. (United Kingdom); P. Vola, LAM, Observatoire Astrophysique de Marseille-Provence (France)
- 7014 65 **Specifying an MOAO-fed integral field spectrograph for the E-ELT** [7014-222]
M. Puech, European Southern Observatory (Germany) and GEPI, Observatoire de Paris, CNRS, Univ. Paris Diderot (France); P. Rosati, S. Toft, European Southern Observatory (Germany); B. Neichel, GEPI, Observatoire de Paris, CNRS, Univ. Paris Diderot (France) and ONERA (France); T. Fusco, ONERA (France)

- 7014 66 **High contrast imaging feasibility study for FRIDA** [7014-223]
M. N'Diaye, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico) and Lab. d'Astrophysique de Marseille, CNRS, Univ. de Provence (France); S. Cuevas, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); K. Dohlen, Lab. d'Astrophysique de Marseille, CNRS, Univ. de Provence (France)
- 7014 67 **Multi-stage apodized pupil Lyot coronagraph experimental results** [7014-224]
L. Abe, Lab. Hippolyte Fizeau, CNRS (France); M. Venet, Observatoire Astronomique de Marseille-Provence (France); K. Enya, H. Kataza, T. Nakagawa, Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (Japan); M. Tamura, National Astronomical Observatory of Japan (Japan)
- 7014 68 **Novel dispersive elements for LIRIS** [7014-225]
A. B. Fragoso-López, J. A. Acosta-Pulido, E. Hernández, M. Barreto, Instituto de Astrofísica de Canarias (Spain); A. Manescau, European Southern Observatory (Germany); A. Manchado, Instituto de Astrofísica de Canarias (Spain)
- 7014 69 **High-efficiency silicon immersion grating by electron-beam lithography** [7014-226]
Y. Ikeda, Photocoding (Japan); N. Kobayashi, Institute of Astronomy, Univ. of Tokyo (Japan); H. Terada, Subaru Telescope, National Astronomical Observatory of Japan (United States); A. Shibayama, A. Ozawa, NTT-AT Nanofabrication Corp. (Japan); C. Yasui, S. Kondo, T.-S. Pyo, Institute of Astronomy, Univ. of Tokyo (Japan); H. Kawakita, Kyoto Sangyo Univ. (Japan)
- 7014 6A **Silicon immersion grating spectrograph design for the NASA Infrared Telescope Facility** [7014-227]
A. T. Tokunaga, T. Bond, Institute for Astronomy, Univ. of Hawaii (United States); D. T. Jaffe, Univ. of Texas at Austin (United States); M. J. Mumma, NASA Goddard Space Flight Ctr. (United States); J. T. Rayner, E. V. Tollestrup, Institute for Astronomy, Univ. of Hawaii (United States); D. W. Warren, The Aerospace Corp. (United States)
- 7014 6B **Cable tension real-time measure system based on RTLinux** [7014-229]
Z. Jiang, L. Zhu, J. Hu, National Astronomical Observatories (China)
- 7014 6C **Investigation of focal ratio degradation in optical fibres for astronomical instrumentation** [7014-230]
L. Crause, South African Astronomical Observatory (South Africa); M. Bershady, Univ. of Wisconsin, Madison (United States); D. Buckley, South African Astronomical Observatory (South Africa)
- 7014 6D **Optical design of FRIDA, the integral-field spectrograph and imager for the AO system of the Gran Telescopio Canarias** [7014-231]
S. Cuevas, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); S. S. Eikenberry, Univ. of Florida (United States); B. Sánchez, O. Chapa, C. Espejo, R. Flores-Meza, G. Lara, L. C. Álvarez, C. Keiman, Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico)
- 7014 6E **Experiment of Wide Field Cryogenic Telescope II (WFCT II) at Sutherland, South African Astronomical Observatory** [7014-232]
K. Haraguchi, M. Kurita, S. Sato, W. Gu, Nagoya Univ. (Japan); T. Nagata, T. Nagayama, T. Zenno, Kyoto Univ. (Japan); D. Kato, The Univ. of Tokyo (Japan)

- 7014 6F **Calibration and modeling support for instruments at ESO** [7014-233]
F. Kerber, P. Bristow, European Southern Observatory (Germany); M. R. Rosa, Space Telescope-European Coordinating Facility (Germany)
- 7014 6G **The COS calibration pipeline and verification process** [7014-234]
M. E. Kaiser, Space Telescope Science Institute (United States) and Johns Hopkins Univ. (United States); P. E. Hodge, C. Keyes, Space Telescope Science Institute (United States); D. Sahnou, Space Telescope Science Institute (United States) and Johns Hopkins Univ. (United States); T. Ake, A. Aloisi, Space Telescope Science Institute (United States); S. Béland, Ctr. for Astrophysics and Space Astronomy, Univ. of Colorado, Boulder (United States); R. Diaz, S. Friedman, Space Telescope Science Institute (United States); C. Froning, Ctr. for Astrophysics and Space Astronomy, Univ. of Colorado, Boulder (United States); P. Ghavamian, Space Telescope Science Institute (United States); J. Green, Ctr. for Astrophysics and Space Astronomy, Univ. of Colorado, Boulder (United States); J. McPhate, Space Sciences Lab., Univ. of California, Berkeley (United States); C. Oliveira, Space Telescope Science Institute (United States) and Johns Hopkins Univ. (United States); S. Osterman, S. Penton, Ctr. for Astrophysics and Space Astronomy, Univ. of Colorado, Boulder (United States); B. Shaw, Space Telescope Science Institute (United States); E. Wilkinson, Ball Aerospace and Technologies Corp. (United States)
- 7014 6H **The Southern African Large Telescope (SALT) calibration system** [7014-235]
D. A. H. Buckley, J. Brink, N. S. Loaring, South African Astronomical Observatory (South Africa); A. Swat, South African Astronomical Observatory (South Africa) and European Southern Observatory (Germany); H. L. Worters, South African Astronomical Observatory (South Africa)
- 7014 6I **Snodar: a new instrument to measure the height of the boundary layer on the Antarctic plateau** [7014-236]
C. S. Bonner, M. C. B. Ashley, J. S. Lawrence, J. W. V. Storey, D. M. Luong-Van, Univ. of New South Wales (Australia); S. G. Bradley, Univ. of Auckland (New Zealand)
- 7014 6J **RISE: a fast-readout imager for exoplanet transit timing** [7014-237]
I. A. Steele, S. D. Bates, Astrophysics Research Institute, Liverpool John Moores Univ. (United Kingdom); N. Gibson, F. Keenan, Astrophysics Research Ctr., Queen's Univ. Belfast (United Kingdom); J. Meaburn, School of Physics and Astronomy, Univ. of Manchester (United Kingdom); C. J. Mottram, Astrophysics Research Institute, Liverpool John Moores Univ. (United Kingdom); D. Pollacco, I. Todd, Astrophysics Research Ctr., Queen's Univ. Belfast (United Kingdom)
- 7014 6K **Hyper Suprime-Cam: back-end electronics for CCD readout** [7014-238]
T. Uchida, H. Miyatake, Univ. of Tokyo (Japan); H. Nakaya, Subaru Telescope, National Astronomical Observatory of Japan (United States); H. Aihara, Univ. of Tokyo (Japan); S. Miyazaki, National Astronomical Observatory of Japan (Japan)
- 7014 6L **CCCP: a CCD controller for counting photons** [7014-239]
O. Daigle, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada), Lab. d'Astrophysique de Marseille, Observatoire Astronomique de Marseille-Provence (France), and Photon etc. (Canada); J.-L. Gach, Lab. d'Astrophysique de Marseille, Observatoire Astronomique de Marseille-Provence (France); C. Guillaume, Observatoire de Haute-Provence (France); S. Lessard, Photon etc. (Canada); C. Carignan, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada), Lab. d'Astrophysique de Marseille,

Observatoire Astronomique de Marseille-Provence (France), and Observatoire d'Astrophysique de l'Univ. de Ouagadougou (Burkina Faso); S. Blais-Ouellette, Photon etc. (Canada)

- 7014 6M **The University of Florida's next-generation cryogenic infrared focal plane array controller system** [7014-240]
S. N. Raines, Univ. of Florida (United States); G. D. Boreman, College of Optics & Photonics, Univ. of Central Florida (United States); S. S. Eikenberry, R. M. Bandyopadhyay, Univ. of Florida (United States); I. Quijano, College of Optics & Photonics, Univ. of Central Florida (United States)
- 7014 6N **The Dark Energy Survey CCD imager design** [7014-242]
H. Cease, Fermi National Accelerator Lab. (United States); D. DePoy, The Ohio State Univ. (United States); G. Derylo, H. T. Diehl, J. Estrada, B. Flaugher, Fermi National Accelerator Lab. (United States); V. Guarino, Argonne National Lab. (United States); K. Kuk, Fermi National Accelerator Lab. (United States); S. Kuhlmann, Argonne National Lab. (United States); K. Schultz, R. L. Schmitt, A. Stefanik, Fermi National Accelerator Lab. (United States); A. Zhao, Argonne National Lab. (United States)
- 7014 6O **Cooling the Dark Energy Camera instrument** [7014-243]
R. L. Schmitt, H. Cease, Fermi National Accelerator Lab. (United States); D. DePoy, The Ohio State Univ. (United States); H. T. Diehl, J. Estrada, B. Flaugher, Fermi National Accelerator Lab. (United States); S. Kuhlmann, Argonne National Lab. (United States); B. Onal, A. Stefanik, Fermi National Accelerator Lab. (United States)
- 7014 6P **Front-end electronics for the Dark Energy Camera (DECam)** [7014-244]
L. Cardiel-Sas, M. Barceló, Institut de Física d'Altes Energies (Spain); J. Castilla, J. DeVicente, Ctr. de Investigaciones Energéticas, Medioambientales y Tecnológicas (Spain); D. Huffman, M. Kozlovsky, Fermi National Accelerator Lab. (United States); G. Martinez, Ctr. de Investigaciones Energéticas, Medioambientales y Tecnológicas (Spain); P. Moore, National Optical Astronomy Observatory (United States); J. Olsen, Fermi National Accelerator Lab. (United States); R. Schmidt, National Optical Astronomy Observatory (United States); T. Shaw, W. Stuermer, Fermi National Accelerator Lab. (United States)
- 7014 6Q **Bias selecting in TEXES electronics** [7014-245]
A. J. Kruger, M. J. Richter, Univ. of California, Davis (United States); J. H. Lacy, Univ. of Texas at Austin (United States); B. Holbrook, Univ. of California, Davis (United States)
- 7014 6R **Daisy chain expandable readout system for infrared arrays** [7014-246]
T. Nagayama, Kyoto Univ. (Japan); K. Haraguchi, Nagoya Univ. (Japan)
- 7014 6S **Design and implementation of an improved chilled water glycol system for NICI array electronics thermal enclosure** [7014-247]
G. Gausachs, Gemini Observatory Southern Operations Ctr. (Chile)
- 7014 6T **The Extreme Polarimeter (ExPo): design of a sensitive imaging polarimeter** [7014-248]
M. Rodenhuis, H. Canovas, S. V. Jeffers, C. U. Keller, Astronomical Institute, Utrecht Univ. (Netherlands)

- 7014 6W **GFP-IFS: a coronagraphic integral field spectrograph for the APO 3.5-meter telescope** [7014-252]
D. G. Bonfield, B. E. Woodgate, NASA Goddard Space Flight Ctr. (United States);
C. A. Grady, NASA Goddard Space Flight Ctr. (United States) and Eureka Scientific, Inc.
(United States); G. M. Hilton, NASA Goddard Space Flight Ctr. (United States) and ADNET
Systems, Inc. (United States); L. A. White, NASA Goddard Space Flight Ctr. (United States);
J. E. McCleary, Univ. of Chicago (United States)
- 7014 6X **ACAM: a new imager/spectrograph for the William Herschel Telescope** [7014-253]
C. Benn, Isaac Newton Group of Telescopes (Spain); K. Dee, Engineering & Project
Solutions Ltd. (United Kingdom); T. Agócs, Isaac Newton Group of Telescopes (Spain)
- 7014 6Y **Thermal gradient analysis for the ESOPO spectrograph** [7014-255]
A. Farah, J. J. González, G. Sierra, J. V. Hernández, M. Pedrayes, J. Echevarría, R. Costero,
Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); G. Avila, European
Southern Observatory (Germany); M. Arroyo, Instituto Nacional de Astrofísica, Óptica y
Electrónica (Mexico); F. Cobos, E. Colorado, A. Cordova, O. Chapa, B. Garcia, F. Garfias,
Instituto de Astronomía, Univ. Nacional Autónoma de México (Mexico); F. Granados,
Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); G. Guisa, E. Luna,
B. Martínez, R. Michel, F. Murillo, F. Pérez, Instituto de Astronomía, Univ. Nacional Autónoma
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(Mexico); F. Quirós, C. Tejada, Instituto de Astronomía, Univ. Nacional Autónoma de
México (Mexico)
- 7014 70 **Design, construction, and performance of VIRUS-P: the prototype of a highly replicated
integral-field spectrograph for HET** [7014-257]
G. J. Hill, P. J. MacQueen, M. P. Smith, McDonald Observatory, The Univ. of Texas at Austin
(United States) and The Univ. of Texas at Austin (United States); J. R. Tufts, Las Cumbres
Observatory (United States); M. M. Roth, A. Kelz, Astrophysikalisches Institut Potsdam
(Germany); J. J. Adams, McDonald Observatory, The Univ. of Texas at Austin (United States)
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Extraterrestrische-Physik (Germany); S. I. Barnes, G. A. Blanc, J. D. Murphy, McDonald
Observatory, The Univ. of Texas at Austin (United States) and The Univ. of Texas at Austin
(United States); W. Altmann, Konstruktionsburo Werner Altmann (Germany); G. L. Wesley,
P. R. Segura, J. M. Good, J. A. Booth, McDonald Observatory, The Univ. of Texas at Austin
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Astrophysikalisches Institut Potsdam (Germany); J. A. Goertz, R. D. Edmonston,
C. P. Wilkinson, McDonald Observatory, The Univ. of Texas at Austin (United States) and The
Univ. of Texas at Austin (United States)
- 7014 71 **Volume phase holographic grating performance on the VIRUS-P instrument** [7014-258]
J. J. Adams, Univ. of Texas at Austin (United States); G. J. Hill, P. J. MacQueen, Univ. of Texas
at Austin (United States) and McDonald Observatory, Univ. of Texas at Austin (United
States)
- 7014 72 **Mechanical design of VIRUS-P for the McDonald 2.7m Harlan J. Smith Telescope** [7014-259]
M. P. Smith, G. J. Hill, P. J. MacQueen, McDonald Observatory, The Univ. of Texas at Austin
(United States); W. Altmann, Konstruktionsburo Werner Altmann (Germany); J. A. Goertz,
J. M. Good, P. R. Segura, G. L. Wesley, McDonald Observatory, The Univ. of Texas at Austin
(United States)

- 7014 73 **VIRUS-W: an integral field unit spectrograph dedicated to the study of spiral galaxy bulges** [7014-260]
M. H. Fabricius, Univ. Observatory of the Ludwig-Maximilians Univ. (Germany) and Max-Planck Institute for Extraterrestrial Physics (Germany); S. Barnes, McDonald Observatory, Univ. of Texas at Austin (United States) and Univ. of Texas at Austin (United States); R. Bender, Univ. Observatory of the Ludwig-Maximilians Univ. (Germany) and Max-Planck Institute for Extraterrestrial Physics (Germany); N. Drory, Univ. Observatory of the Ludwig-Maximilians Univ. (Germany); F. Grupp, Max-Planck Institute for Extraterrestrial Physics (Germany); G. J. Hill, McDonald Observatory, Univ. of Texas at Austin (United States) and Univ. of Texas at Austin (United States); U. Hopp, Univ. Observatory of the Ludwig-Maximilians Univ. (Germany) and Max-Planck Institute for Extraterrestrial Physics (Germany); P. J. MacQueen, McDonald Observatory, Univ. of Texas at Austin (United States) and Univ. of Texas at Austin (United States)
- 7014 75 **Extreme multiplex spectroscopy at wide-field 4-m telescopes** [7014-263]
R. Content, T. Shanks, Univ. of Durham (United Kingdom)
- 7014 76 **Optical-mechanical operation of the F2T2 filter: a tunable filter designed to search for First Light** [7014-265]
E. Mentuch, Univ. of Toronto (Canada) and COM DEV Canada (Canada); A. Scott, COM DEV Canada (Canada) and Ctr. for Research in Earth & Space Science, York Univ. (Canada); R. Abraham, Univ. of Toronto (Canada); E. Barton, Univ. of California, Irvine (United States); M. Bershady, Univ. of Wisconsin, Madison (United States); J. Bland-Hawthorn, Anglo-Australian Observatory (Australia); D. Crampton, Herzberg Institute of Astrophysics, National Research Council Canada (Canada); R. Doyon, Univ. de Montréal (Canada); S. Eikenberry, Univ. of Florida (United States); M. Gladders, Univ. of Chicago (United States); K. Glazebrook, Ctr. for Astrophysics & Supercomputing, Swinburne Univ. of Technology (Australia); J. Jenson, J. Julian, R. Julian, Univ. of Florida (United States); J.-P. Kneib, Lab. d'Astrophysique de Marseille (France); D. Loop, Herzberg Institute of Astrophysics, National Research Council Canada (Canada); N. Raines, Univ. of Florida (United States); N. Rowlands, COM DEV Canada (Canada); J. D. Smith, Ritter Astrophysical Observatory, Univ. of Toledo (United States)
- 7014 77 **The Smart Tunable Filter for ELT** [7014-266]
O. Hernandez, Ctr. de Recherche en Astrophysique du Québec, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada); C. Carignan, Ctr. de Recherche en Astrophysique du Québec, Lab. d'Astrophysique Expérimentale, Univ. de Montréal (Canada), Observatoire Astronomique de Marseille-Provence, Univ. de Provence (France), and Observatoire d'Astrophysique de l'Univ. de Ouagadougou (Burkina Faso); P. Amram, Observatoire Astronomique de Marseille-Provence, Univ. de Provence (France); S. Balis-Ouellette, Photon etc. (Canada); B. Épinat, Observatoire Astronomique de Marseille-Provence, Univ. de Provence (France)
- 7014 79 **The Carnegie Planet Finder Spectrograph: a status report** [7014-268]
J. D. Crane, S. A. Sheckman, Observatories of the Carnegie Institution of Washington (United States); R. P. Butler, Carnegie Institution of Washington (United States); I. B. Thompson, G. S. Burley, Observatories of the Carnegie Institution of Washington (United States)

- 7014 7B **Design of a laboratory simulator to test exoplanet imaging polarimetry** [7014-270]
S. V. Jeffers, N. Miesen, M. Rodenhuis, C. U. Keller, Sterrenkundig Instituut, Univ. Utrecht (Netherlands)
- 7014 7D **Influence of instrumental noise and defocus on the DIMM** [7014-272]
Z. Benkhaldoun, Y. Hach, LPHEA, Univ. Cadi Ayyad (Morocco)
- 7014 7E **LIINUS: a design study for interferometric imaging spectroscopy at the LBT** [7014-273]
C. Gál, Univ. of Cologne (Germany); F. Müller-Sánchez, Max-Planck Institute for extraterrestrial Physics (Germany); A. Krabbe, Univ. of Cologne (Germany); F. Eisenhauer, Max-Planck Institute for extraterrestrial Physics (Germany); C. Iserlohe, Univ. of Cologne (Germany); M. Haug, Max-Planck Institute for extraterrestrial Physics (Germany); T. M. Herbst, Max-Planck Institute for Astronomy (Germany)
- 7014 7F **Dispersed interferometry for infrared exoplanet velocimetry** [7014-274]
J. Edelstein, M. W. Muterspaugh, D. Erskine, M. Marckwordt, W. M. Feuerstein, T. Mercer, A. Czeszumska, J. Schwer, S. Halverson, Space Sciences Lab., Univ. of California, Berkeley (United States); J. P. Lloyd, P. S. Muirhead, J. T. Wright, T. Herter, Cornell Univ. (United States)
- 7014 7G **Gemini helium closed cycle cooling system** [7014-275]
M. Lazo, R. Galvez, R. Rogers, H. Solis, E. Tapia, D. Maltes, P. Collins, Gemini Observatory, Southern Operation Ctr. (Chile); J. White, C. Cavedoni, C. Yamasaki, M. P. Sheehan, B. Walls, Gemini Observatory, Northern Operation Ctr. (United States)
- 7014 7I **Optical design of the SCUBA-2 IFTS** [7014-277]
M. R. Leclerc, INO (Canada); B. Gom, D. Naylor, Univ. of Lethbridge (Canada)
- 7014 7J **Technical improvements and performances of SpiOMM: an imaging Fourier transform spectrometer for astronomy** [7014-278]
A.-P. Bernier, M. Charlebois, L. Drissen, Univ. Laval (Canada) and Ctr. de Recherche en Astrophysique du Québec (Canada); F. Grandmont, ABB Bomem Inc. (Canada)
- 7014 7K **Science results from the imaging Fourier transform spectrometer SpiOMM** [7014-279]
L. Drissen, A.-P. Bernier, M. Charlebois, É. Brière, C. Robert, G. Joncas, Univ. Laval (Canada) and Ctr. de Recherche en Astrophysique du Québec (Canada); P. Martin, Canada-France-Hawaii Telescope Corp. (United States); F. Grandmont, ABB Bomem Inc. (Canada)
- 7014 7L **Current status of the HETDEX fiber optic support system** [7014-280]
J. M. Good, G. J. Hill, The Univ. of Texas McDonald Observatory (United States); N. T. Mollison, The University of Texas at Austin (United States); B. L. Vattiat, J. D. Murphy, The Univ. of Texas McDonald Observatory (United States); A. Klez, M. M. Roth, Astrophysikalisches Institut Potsdam (Germany); P. J. MacQueen, M. D. Rafal, R. D. Savage, M. P. Smith, A. J. Bayless, The Univ. of Texas McDonald Observatory (United States)

- 7014 7M **A multi-instrument focal station for a 2m-class robotic telescope** [7014-281]
F. Grupp, Univ. Observatory of the Ludwigs-Maximilians Univ. (Germany) and Max-Planck Institute for Extraterrestrial Physics (Germany); F. Lang, Univ. Observatory of the Ludwigs-Maximilians Univ. (Germany); R. Bender, Univ. Observatory of the Ludwigs-Maximilians Univ. (Germany) and Max-Planck Institute for Extraterrestrial Physics (Germany); C. Gössl, Univ. Observatory of the Ludwigs-Maximilians Univ. (Germany); U. Hopp, Univ. Observatory of the Ludwigs-Maximilians Univ. (Germany) and Max-Planck Institute for Extraterrestrial Physics (Germany)
- 7014 7N **L-band orthomode transducer for the Sardinia Radio Telescope** [7014-282]
A. Navarrini, T. Pisanu, INAF - Cagliari Astronomical Observatory (Italy)
- 7014 7O **MONSOON image acquisition system: control techniques for application to the orthogonal transfer array detectors** [7014-284]
P. Moore, N. Buchholz, M. Hunten, D. Sawyer, National Optical Astronomy Observatory (United States)
- 7014 7P **A global SOLIS vector spectromagnetograph (VSM) network** [7014-285]
K. V. Ständer, M. S. Giampapa, J. W. Harvey, C. J. Henney, A. A. Norton, National Solar Observatory (United States)

Author Index

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- 1 Instrumentation at Major Observatories I
Suzanne K. Ramsay, European Southern Observatory (Germany)
- 2 Instrumentation at Major Observatories II
David Crampton, Herzberg Institute of Astrophysics, National Research
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- 3 Optical Imaging
David Crampton, Herzberg Institute of Astrophysics, National Research
Council Canada (Canada)

- 4 Optical Spectroscopy
Ian S. McLean, University of California, Los Angeles (United States)
- 5 Infrared Cameras and Spectrometers
Mark M. Casali, European Southern Observatory (Germany)
- 6 Airborne Instruments
Maureen L. Savage, USRA—Universities Space Research Association
(United States)
- 7 Solar Instruments
Oskar F. H. von der Lühe, Kiepenheuer-Institut für Sonnenphysik
(Germany)
- 8 Adaptive Optics Fed Instrumentation and High Contrast Imaging I
(Joint Session with Conference 7015)
Bruce A. Macintosh, Lawrence Livermore National Laboratory (United
States)
- 9 Adaptive Optics Fed Instrumentation and High Contrast Imaging II
(Joint Session with Conference 7015)
Douglas A. Simons, Gemini Observatory (United States)
- 10 Instruments for ELTs I
Stephen S. Eikenberry, University of Florida (United States)
- 11 Instruments for ELTs II
Stephen S. Eikenberry, University of Florida (United States)
- 12 Instrumentation Techniques and Technologies I
José M. Rodríguez Espinosa, Instituto de Astrofísica de Canarias
(Spain)
- 13 Instrumentation Techniques and Technologies II
Mark M. Casali, European Southern Observatory (Germany)
- 14 Instrumentation Techniques and Technologies III
Ian S. McLean, University of California, Los Angeles (United States)

Introduction

Developments in astronomical instrumentation for both ground-based and airborne observatories have never been more intensive or challenging. New instruments are increasingly more complex and sophisticated in design, more demanding in performance, and often more costly to produce. Balancing cost against performance is more important than ever. In addition to the challenges of equipping the largest telescopes such as Keck, VLT, Subaru, Gemini, HET, SALT, GTC, Magellan, and LBT, ideas have already emerged on how to approach instrumentation for even larger telescopes with apertures of 20 meters or more. Equally important, innovative optical/IR instrumentation for many kinds of smaller telescopes has provided new opportunities and challenges in recent years. Adaptive optics, wide-field multi-object surveys, and 3D spectroscopy continue to grow, and optical/IR detectors continue to improve.

This conference on Ground-based and Airborne Instrumentation for Astronomy was established with the following aims: (1) to provide an overview of the performance and lessons learned from those instruments already in operation (partly through invited reviews); (2) to give insight into the design and status of future instruments proposed, planned, or already in development; (3) to create a forum for the exchange of more detailed technical information on achievements and problems amongst instrument builders in both the academic and industrial worlds.

At this conference, more than 250 papers (both poster and oral contributions) were delivered on the design, development, and performance of UV, optical, and infrared instrumentation for both ground-based and airborne astronomy. Specific areas of interest included:

- performance of recently developed instrumentation
- lessons learned from existing major instrumentation programs
- design reports of new instruments: imagers, spectrographs, and polarimeters
- new components/techniques, e.g., IFUs, polarizers, grisms, VPH gratings, and coronagraphs
- instruments for airborne astronomy
- instruments for ground-based solar telescopes
- instrumentation for future extremely large telescopes
- the overlap between AO and instrumentation

The conference was subdivided into 14 sessions spread over 5 days, including a joint session with the associated conference (7015) on Adaptive Optics. There is little doubt that the aims of the meeting were achieved and this record of the proceedings is an impressive testimony to the state of the art in astronomical instrumentation today.

Ian S. McLean
Mark M. Casali