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# ***Developments in X-Ray Tomography IX***

**Stuart R. Stock**  
*Editor*

**18–20 August 2014**  
**San Diego, California, United States**

*Sponsored and Published by*  
SPIE

**Volume 9212**

Proceedings of SPIE 0277-786X, V. 9212

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Developments in X-Ray Tomography IX, edited by Stuart R. Stock, Proc. of SPIE Vol. 9212,  
921201 · © 2014 SPIE · CCC code: 0277-786X/14/\$18 · doi: 10.1117/12.2081277

Proc. of SPIE Vol. 9212 921201-1

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Please use the following format to cite material from this book:

Author(s), "Title of Paper," in *Developments in X-Ray Tomography IX*, edited by Stuart R. Stock, Proceedings of SPIE Vol. 9212 (SPIE, Bellingham, WA, 2014) Article CID Number.

ISSN: 0277-786X

ISBN: 9781628412390

Published by

**SPIE**

P.O. Box 10, Bellingham, Washington 98227-0010 USA

Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445

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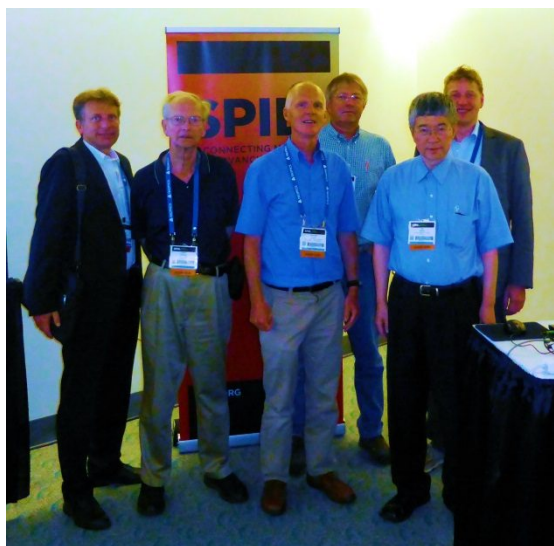
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## Introduction

The field of x-ray tomography with emphasis on micro- and nano-scale 3D imaging continues to develop rapidly. Many more laboratory and storage-ring based Computed Tomography (CT) systems are in operation, churning out data sets, than there were in August 2012 when the last Developments conference was held. Spectral CT and photon counting CT are examples of rapidly developing modalities. Strategies are becoming increasingly sophisticated for rapid, accurate registration of tomography data sets with those of other modalities. Methods for reconstruction with limited data sets (missing angle ranges; small number of projections) and for phase reconstruction are becoming much more accessible.

The field remains vibrant. The editor has identified many more than  $10^3$  papers on x-ray microCT published annually, and there is great industrial effort which does not produce papers in the open literature. The third generation of tomographers is coming into their own (e.g., students of students of faculty such as Prof. Ulrich Bonse who established this conference). As time passes and a field becomes more mature, it is inevitable that members of this community are lost. Steve Wilkins a longtime proponent of x-ray imaging, developer of innovative approaches and former member of the Program Committee, died between Developments meetings. Tom Breunig died suddenly; he has been out of the field for some years but was a key member of the teams doing the first in situ tomography loading experiments of cracked samples and the in vivo microCT of small animals.

The ninth conference in the Developments series filled two entire days (oral presentations) and an evening poster session. There was a stimulating balance between mathematical treatment of reconstructions and of artifact reduction on the



The Program Committee after a session (from left to right): Bert Müller, Erik Ritman, Graham Davis, Stuart Stock, Ge Wang and Felix Beckmann

one hand and experimental studies and analysis strategies and instrumentation development on the other. The diversity of applications underlined the mature interdisciplinary scope of the conference. The Editor thanks the authors for their excellent talks and papers, invited and contributed; 42 manuscripts from 53 presentations appear in the conference volume. He also thanks the Program Committee for their very important help; two of them reviewed each manuscript. The photograph below shows Committee members after one of the technical sessions. Last, but not least, the SPIE staff provided exemplary support with the program development, the meeting itself and the Proceedings.

**Stuart R. Stock**

