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Integrated Modeling of Complex Optomechanical Systems

Torben Andersen
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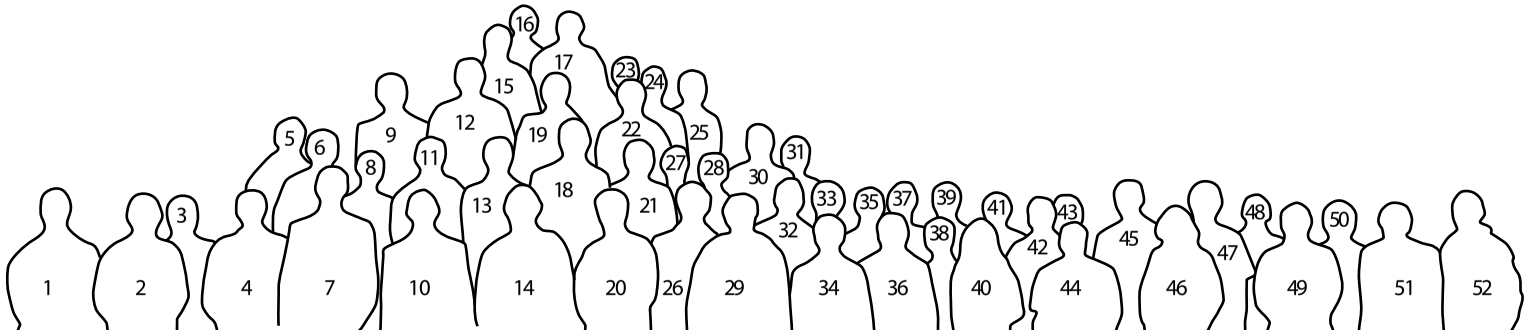
Introduction

Mathematical modeling and performance simulation are playing an increasing role in large, high-technology projects. There are two reasons; first, projects are now larger than they were before, and the high cost calls for detailed performance prediction before construction. Second, in particular for space-related designs, it is often difficult to test systems under realistic conditions beforehand, and mathematical modeling is then needed to verify in advance that a system will work as planned.

Computers have become much more powerful, permitting calculations that were not possible before. At the same time mathematical tools have been further developed and found acceptance in the community. Particular progress has been made in the fields of structural mechanics, optics and control engineering, where new methods have gained importance over the last few decades. Also, methods for combining optical, structural and control system models into global models have found widespread use. Such combined models are usually called *integrated models* and were the subject of this symposium.

The objective was to bring together people working in the fields of ground-based optical telescopes, ground-based radio telescopes, and space telescopes. We succeeded in doing so and had 39 interesting presentations and many fruitful discussions during coffee and lunch breaks and social arrangements. We are grateful that so many top ranked specialists found their way to Kiruna and we believe that these proceedings will prove valuable during much future work.

Torben Andersen
Anita Enmark



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