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# Scale Space and Variational Methods in Computer Vision

Second International Conference, SSVM 2009  
Voss, Norway, June 1-5, 2009  
Proceedings

Volume Editors

Xue-Cheng Tai  
Department of Mathematics  
University of Bergen, Norway  
and Division of Mathematical Science  
Nanyang Technological University, Singapore  
E-mail: tai@math.uib.no

Knut Mørken  
Department of Informatics  
and Centre of Mathematics for Applications  
University of Oslo, Norway  
E-mail: knutm@ifi.uio.no

Marius Lysaker  
Simula Research Laboratory  
Lysaker, Norway  
E-mail: mariul@simula.no

Knut-Andreas Lie  
Centre of Mathematics for Applications  
University of Oslo, Norway  
and SINTEF ICT, Oslo, Norway  
E-mail: knut-andreas.lie@sintef.no

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# Preface

This book contains 71 original, scientific articles that address state-of-the-art research related to scale space and variational methods for image processing and computer vision. Topics covered in the book range from mathematical analysis of both established and new models, fast numerical methods, image analysis, segmentation, registration, surface and shape construction and processing, to real applications in medical imaging and computer vision. The ideas of scale space and variational methods related to partial differential equations are central concepts. The papers reflect the newest developments in these fields and also point to the latest literature.

All the papers were submitted to the Second International Conference on Scale Space and Variational Methods in Computer Vision, which took place in Voss, Norway, during June 1–5, 2009. The papers underwent a peer review process similar to that of high-level journals in the field. We thank the authors, the Scientific Committee, the Program Committee and the reviewers for their hard work and helpful collaboration. Their contribution has been crucial for the efficient processing of this book, and for the success of the conference.

Finally, we wish to thank those who have supported and helped to organize the conference. First and foremost it is a pleasure to acknowledge the generous financial support from the Centre of Mathematics for Applications (CMA) at the University of Oslo and the Research Council of Norway. In addition, partial support was given by the Centre of Integrated Petroleum Research (CIPR) at the University of Bergen and the Simula Research Laboratory (SRL). Moreover, we would like to thank Tiril P. Gurholt and Andrew McMurry for their support, both with technical and administrative matters. Members and students from the Mathematical Imaging and Vision Group at the Nanyang Technological University of Singapore and the University of Bergen, Norway deserve special thanks for their kind help.

March 2009

Xue-Cheng Tai  
Knut Mørken  
Marius Lysaker  
Knut-Andreas Lie

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