## Lecture Notes in Computer Science

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Edited by G. Goos, J. Hartmanis, and J. van Leeuwen

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# Scale Space Methods in Computer Vision

4th International Conference, Scale Space 2003 Isle of Skye, UK, June 10-12, 2003 Proceedings



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#### **Preface**

Following previous conferences in Utrecht (1997), Corfu (1999) and Vancouver (2001), this year's Scale Space Conference took place on the Isle of Skye, Scotland, UK. The conference was an independent stand-alone affair following two previous successful meetings as a satellite. This attests to the still-growing interest in the field 6 years after its first dedicated conference and 10 years after the first US-NSF/EC-ESPRIT sponsored workshop.

Scale Space 2003 received 101 abstract submissions of which 88 were submitted as full high-quality papers; this was an increase of 47% over the previous meeting! Fifty-six reviewers completed 288 reviews, resulting in a mean of 3.3 reviews. Reviewing was administered by Richard van de Stadt's excellent Cyber-Chair software, which, through its expertise and bidding mechanisms, ensured a tight fit between papers and reviewers. The results of the reviewing were the primary basis of the Program Board's decision to accept 56 papers (64% of submissions), of which 31 (35% of submissions) were accepted as oral presentations.

We were delighted that three experts in fields related to Scale Space accepted our invitation to join the conference. Aapo Hyvärinen reviewed his and others' work on ICA and images, Mark Georgeson presented psychophysical data on features and explained it using Scale Space style models, and Markus van Almsick described his implementation of Scale Space symbolics and numerics as a Mathematica add-on package.

I would like to express my appreciation to the authors of the submitted papers, and to the members of the program committee, who provided timely and significant reviews. Thanks also to the program board and to Martin Lillholm (assistant chair) for their essential work. Thanks to the British Machine Vision Association for underwriting the conference. Thanks to Carlotta Graham and the other staff at Sabhal Mór Ostaig, the college on Skye where the conference was held. Special thanks to Richard van de Stadt, the creator of the excellent CyberChair package used to administrate the submission, reviewing and proceedings preparation.

London, April 2003

Lewis Griffin

#### Organization

Scale Space 2003 was organized by the Division of Imaging, School of Medicine, King's College London together with the IT University of Copenhagen, Denmark. The conference was supported by the British Machine Vision Association.





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Mark Georgeson (Aston University, UK)

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Aapo Hyvärinen (Helsinki University of Technology, Finland) "Independent Component Analysis and Related Models of the Statistical Structure of Natural Images: Implications for Visual Coding"

Markus van Almsick (Eindhoven University of Technology, The Netherlands) "Efficient Coding of Scale-Space Applications with Mathematica"

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