These proceedings contain the papers presented at MMM 2017, the 23rd International Conference on MultiMedia Modeling, held at Reykjavik University during January 4–6, 2017. MMM is a leading international conference for researchers and industry practitioners for sharing new ideas, original research results, and practical development experiences from all MMM related areas, broadly falling into three categories: multimedia content analysis; multimedia signal processing and communications; and multimedia applications and services.

MMM conferences always include special sessions that focus on addressing new challenges for the multimedia community. The following four special sessions were held at MMM 2017:

- SS1: Social Media Retrieval and Recommendation
- SS2: Modeling Multimedia Behaviors
- SS3: Multimedia Computing for Intelligent Life
- SS4: Multimedia and Multimodal Interaction for Health and Basic Care Applications

MMM 2017 received a total 198 submissions across four categories; 149 full-paper submissions, 34 special session paper submissions, eight demonstration submissions, and seven submissions to the Video Browser Showdown (VBS 2017). Of all submissions, 68% were from Asia, 27% from Europe, 3% from North America, and 1% each from Oceania and Africa.

Of the 149 full papers submitted, 35 were selected for oral presentation and 33 for poster presentation, which equates to a 46% acceptance rate overall. Of the 34 special session papers submitted, 24 were selected for oral presentation and two for poster presentation, which equates to a 76% acceptance rate overall. In addition, five demonstrations were accepted from eight submissions, and all seven submissions to VBS 2017. The overall acceptance percentage across the conference was thus 54%, but 46% for full papers and 23% of full papers for oral presentation.

The submission and review process was coordinated using the ConfTool conference management software. All full-paper submissions were reviewed by at least three members of the Program Committee. All special session papers were reviewed by at least three reviewers from the Program Committee and special committees established for each special session. All demonstration papers were reviewed by at least three reviewers, and VBS papers by two reviewers. We owe a debt of gratitude to all these reviewers for providing their valuable time to MMM 2017.

We would like to thank our invited keynote speakers, Marcel Worring from the University of Amsterdam, The Netherlands, and Noriko Kando from the National Institute of Informatics, Japan, for their stimulating contributions.

We also wish to thank our organizational team: Demonstration Chairs Esra Acar and Frank Hopfgartner; Video Browser Showdown Chairs Klaus Schoeffmann, Werner Bailner, Cathal Gurrin and Jakub Lokoč; Sponsorship Chairs Yantao Zhang and Tao Mei;
Proceedings Chair Gylfi Þór Guðmundsson; and Local Organization Chair Marta Kristín Lárusdóttir.

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The accepted research contributions represent the state of the art in multimedia modeling research and cover a very diverse range of topics. A selection of the best papers will be invited to submit extended versions to a special issue of Multimedia Tools and Applications. We wish to thank all authors who spent their valuable time and effort to submit their work to MMM 2017. And, finally, we thank all those who made the (sometimes long) trip to Reykjavík to attend MMM 2017 and VBS 2017.

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Björn Þór Jónsson
Cathal Gurrin
Laurent Amsaleg
Shin’ichi Satoh
Gylfi Þór Guðmundsson
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