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Guest Editorial: Proceedings of SPM 2023 Symposium

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The Symposium on Solid and Physical Modeling (SPM) is an international conference series organised annually with the support of the Solid Modeling Association (SMA). It has a long tradition since 1991 and is considered a top event for disseminating research results and exchanging new ideas in all aspects of geometric and physical modeling, and their application in design, analysis, and manufacturing, as well as in biomedical, geophysical, digital entertainment, and other areas.

The 2023 Symposium on Solid and Physical Modeling (SPM'2023) was co-located with four other major international events in applied geometry; namely, the Geometric Modeling and Processing (GMP) conference, the SIAM Conference on Computational Geometric Design (SIAM-GD), the Shape Modeling International (SMI) conference, and the Eurographics Symposium on Geometry Processing (SGP). The five events were collectively called the 3rd International Geometry Summit (IGS'2023) held July 3-7, 2023, in Genoa, Italy.

The SPM'2023 call for papers attracted 59 abstracts and subsequently 54 full paper submissions that underwent a double-blind review process. Each submission was assigned to four reviewers from the SPM International Program Committee (IPC). The IPC was composed of 75 members: 32 from Europe, 26 from North America, 16 from Asia/Pacific, and 1 from Australia. After revisions by the authors, conditionally accepted papers underwent a second round of reviews. A total of 16 papers were selected for presentations at the conference and published as full papers in this special issue of Computer-Aided Design (Elsevier). Additionally, 5 papers were recommended as fast-track submissions to Computer-Aided Design, pending major revisions. All 16 selected papers were presented at the SPM conference. From these papers, based on the scores received during the peer review cycle, the best paper selection committee chaired by Lucia Romani, SPM Program Chair, and consisting of two other senior IPC members participating in the conference (Franca Giannini, SPM Conference Chair, and Charlie C.L. Wang, SMA EC Chair), selected the three best papers. The recipients of the SPM 2023 Best Paper Awards (fully sponsored by Elsevier) were [1], [2], and [3], in the first, second, and third places, respectively.

In addition to the aforementioned 16 presentations, SPM'2023 included 8 invited talks by the authors of papers recently published in Computer-Aided Design, and two keynote lectures

given by leading scientists in the field: Xianfeng David Gu (Stony Brook University, USA) and Hanan Samet (University of Maryland, USA). The latter was the recipient of the 2022 Pierre Bézier Award of the SMA, established in 2007 to recognize individuals or teams who have made long lasting contributions in Solid, Geometric, or Physical Modeling or in their Applications.

SPM'2023 served also as a ceremony for awarding the 2023 Pierre Bézier Award to Wenping Wang (Texas A&M University, USA) in recognition of his outstanding contributions in geometric modeling and computing as well as his innovative impact in applied geometry.

Last but not least, we would like to acknowledge the efforts of numerous people who helped make SPM'2023 a success and contributed to this special issue, including participants, authors, and IPC members. We are also grateful to the SPM Conference Chairs (Franca Giannini, Tsz Ho Kwok, and Ying He), IGS Summit Chairs (Michela Spagnuolo, Konrad Polthier, and Wenping Wang), and to the SMA EC Chair (Charlie C.L. Wang) for their valuable support. Finally, our special thanks go to Vadim Shapiro, the Editor-in-Chief of Computer-Aided Design, and to the entire Elsevier support team for the production of this special issue.

References

- [1] C. Zong, J. Zhao, P. Wang, S. Chen, S. Xin, Y. Zhou, C. Tu, W. Wang, A region-growing gradnormal algorithm for geometrically and topologically accurate mesh extraction, *Computer-Aided Design* 163 (2023) 103559. doi: 10.1016/j.cad.2023.103559.
- [2] Y.-S. Gazull, A. Bac, A. Gonzalez-Lorenzo, Computing geometrical measures of topological holes, *Computer-Aided Design* 163 (2023) 103563. doi:10.1016/j.cad.2023.103563.
- [3] Q. Y. Hong, G. Elber, M.-S. Kim, Implicit functionally graded conforming microstructures, *Computer-Aided Design* 162 (2023) 103548. doi: 10.1016/j.cad.2023.103548.

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