

Foreword to the Special Topic

SHEN Liyong · WU Wenyuan

DOI: 10.1007/s11424-021-0600-8

Received: 5 January 2021

©The Editorial Office of JSSC & Springer-Verlag GmbH Germany 2021

This issue contains the following seven papers as the proceeding of the Eleventh Conference of Computer Mathematics (CM2019), held at Chengdu, Sichuan Province, October 24–27, 2019. In the conference, the contributed papers were selected by the Program Committee for presentation at the symposium and went through a standard refereeing process after the symposium. We are therefore extremely grateful to the Program Committee members and the reviewers for their work in evaluating the submissions before and after the conference.

In addition to the regular sessions, CM 2019 had three plenary invited talks-by Professor Zongben Xu on AI and Mathematics, by Professor Zhenya Yan on complex nonlinear system and by Professor Yongjing Liu on computational geometry. Meanwhile, CM 2019 had six more young scholar invited talks by Changbo Chen, Wei Li, Yao Sun, Xinyu Wang, Zhengfeng Yang and Zhiheng Yu. We hereby thank the speakers for their excellent talks.

Moreover, we would like to present our gratitude to all those who had contributed to the present volume of CM 2019. We thank the authors of the papers for contributing their work and the conference participants for their presence. We also thank the session chairs for hosting the sessions on selected research topics. We especially thank the local chair Professor Xiaolin Qing and the local arrangement team, who had made the conference successful and enjoyable. CM2019 gratefully acknowledges the generous support of Sichuan University, the Academy of Mathematics and Systems Science and the Key Laboratory of Mathematics Mechanization at the Chinese Academy of Sciences, and the National Natural Science Foundation of China.

SHEN Liyong

School of Mathematical Sciences, University of Chinese Academy of Sciences, Chinese Academy of Sciences, Beijing 100049, China. Email: lyshen@ucas.ac.cn.

WU Wenyuan

Chongqing Institute of Green and Intelligent Technology, Chinese Academy of Sciences, Chongqing 400714, China. Email: wuwenyuan@cigit.ac.cn.

References

- [1] Alam M N and Li X, Non-uniform Doo-Sabin subdivision surface via eigen polygon, *Journal of Systems Science & Complexity*, 2021, **34**(1): 3–20.
- [2] Li J G, Ji Y, and Zhu C G, De Casteljau algorithm and degree elevation of toric surface patches, 2021, **34**(1): 21–46.
- [3] Ni Q, Deng J S, and Wang X H, An adaptive collocation method with weighted extended PHT-splines, *Journal of Systems Science & Complexity*, 2021, **34**(1): 47–67.
- [4] Wang G Y, Xu G, Qu Q, et al., Two-stage point cloud super resolution with local interpolation and readjustment via outer-product neural network, *Journal of Systems Science & Complexity*, 2021, **34**(1): 68–82.
- [5] Yuan C M, Mi Z P, Jia X H, et al., Tool orientation optimization and path planning for 5-axis machining, *Journal of Systems Science & Complexity*, 2021, **34**(1): 83–106.
- [6] Wang R H, An algorithmic approach to the q -summability problem of bivariate rational functions, *Journal of Systems Science & Complexity*, 2021, **34**(1): 107–121.
- [7] Zhang R F, Bilige S D, and Chaolu T, Fractal solitons, arbitrary function solutions, exact periodic wave and breathers for a nonlinear partial differential equation by using bilinear neural network method, *Journal of Systems Science & Complexity*, 2021, **34**(1): 122–139.