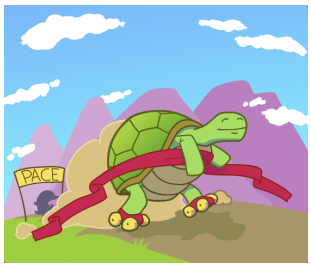
PACE

Parameterized Algorithms and Computational Experiments Challenge

The Parameterized Algorithms and Computational Experiments Challenge (PACE) was conceived in Fall 2015 to deepen the relationship between parameterized algorithms and practice. It aims at bridge the divide between the theory of algorithm design and the practice of algorithm engineering, by providing open-source and available implementations (on public repositories with a DOI) and benchmark instances and inspiring new theoretical developments. Each year, one or two (theoretical) problems are selected as well as benchmark instances, and the challenge consists in producing efficient algorithms for these problems. After the challenge, a ranking is given, a report is produced in IPEC as well as a description of the best approaches.



Florian Sikora participated to this challenge two times (2017[1] and 2022), co-designed the challenge in 2018 [BS18] and took part to the Steering Committee in 2019 and 2020.

- Call for participation of PACE 2019: `https://pacechallenge.org/2019/01/04/PACE-2019-CFP/`
- Call for participation of PACE 2020: `https://pacechallenge.org/2019/10/24/PACE-2020-CFP/`
- Code of F. Sikora for PACE 2022: `https://github.com/fsikora/pace22`

References

[BS18] Édouard Bonnet and Florian Sikora. The PACE 2018 parameterized algorithms and computational experiments challenge: The third iteration. In Christophe Paul and Michal Pilipczuk, editors, *13th International Symposium on Parameterized and Exact Computation, IPEC 2018, August 20-24, 2018, Helsinki, Finland*, volume 115 of *LIPIcs*, pages 26:1–26:15. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2018.

[1] Ranked 3rd