

Proceedings of the Hyperplane Arrangements and Singularities Conference, Hyper–JARCS 2019

The Hyperplane Arrangements and Singularities Conference (also known as Hyper–JARCS) was held December 2–6, 2019 at the University of Tokyo, Japan. The Organizing Committee for the conference consisted of Laurențiu Păunescu (Chair), Alexandru Dimca, Toshizumi Fukui, Toshitake Kohno, Alex Suciu, and Masahiko Yoshinaga.

The conference built on the 20-year long tradition of the Japanese–Australian Workshops on Real and Complex Singularities (JARCS). It was supported by the Graduate School of Mathematical Sciences at the University of Tokyo, the Japan Society for Promotion of Sciences, and the National Science Foundation.

The Hyper–JARCS conference brought together some 70–80 researchers and students interested in the topology, algebra, and combinatorics of hyperplane arrangements, and the topological study of singular algebraic and analytic varieties. The conference was mainly research-oriented, intended to disseminate recent developments; it also included introductory lectures at a level accessible to graduate students. The event featured 31 invited talks by the following speakers.

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| – Takuro Abe | – Laurențiu Păunescu |
| – Marian Aprodu | – Florian Pop |
| – Christin Bibby | – Claudiu Raicu |
| – Nero Budur | – Antoni Rangachev |
| – Joana Cirici | – Kentaro Saji |
| – Graham Denham | – Mario Salvetti |
| – Mike Eastwood | – Alex Suciu |
| – Gavril Farkas | – Shinichi Tajima |
| – Hu He Han | – Susumu Tanabé |
| – Anthony Henderson | – Mihai Tibăr |
| – Atsufumi Honda | – Stephan Tillmann |
| – Shunsuke Ichiki | – Uli Walther |
| – Toshitake Kohno | – Masahiko Yoshinaga |
| – András Cristian Lőrincz | – Ruibin Zhang |
| – Daniel Matei | – Zhou Zhang |
| – Laurențiu Maxim | |

Additionally, there were 16 poster presentations by postdocs and graduate students. There was intense interactions among participants, which also

included the following mathematicians: Atia Afroz, Sunil Chebolu, Mizuki Fukuda, Takuo Fukuda, Toshizumi Fukui, Brian Hepler, Kazumasa Inaba, Masaharu Ishikawa, Satoshi Koike, Yuta Kambe, Wataru Komine, Hironobu Naoe, Mutsuo Oka, Osamu Saeki, Kiyoshi Takeuci, Phil Tosteson, and Shoji Yokura.

Ștefan Papadima was a driving force in the topological study of hyperplane arrangements and non-isolated singularities, as well as rational homotopy theory and the study of braid groups. His untimely death in January 2018 was deeply felt in the mathematical community; given the research themes of the conference, Hyper-JARCS was dedicated to his memory.

This Special Issue of *Topology and its Applications* collects selected articles based on presentations delivered at the Hyper-JARCS conference. It includes contributions from most of the speakers, and some of their collaborators. The papers cover a wide range of topics, ranging from singularity theory and hyperplane arrangements, to algebraic and geometric topology, algebraic geometry, and combinatorics.

The Special Issue is dedicated to the memory of Ștefan Papadima (1953–2018).

Guest Editors

- Laurențiu Păunescu (University of Sydney, Australia)
- Toshizumi Fukui (Saitama University, Japan)
- Toshitake Kohno (University of Tokyo, Japan)
- Laurențiu Maxim (University of Wisconsin-Madison, USA)
- Alexander Suciu (Northeastern University, USA)
- Masahiko Yoshinaga (Hokkaido University, Japan)