Preface

This volume is the proceedings of the *8th International Workshop on Bidirectional Transformations* (Bx 2019).

Bidirectional transformations (Bx) are a mechanism for maintaining the consistency of at least two related sources of information. Such sources can be relational databases, software models and code, or any other document following standard or ad hoc formats. Bx are an emerging topic in a wide range of research areas, with prominent presence at top conferences in several different fields including databases, programming languages, software engineering, and graph transformation, but with results in one field often getting limited exposure in the others. The Bx workshop series was created in order to promote cross-disciplinary research and awareness in the area. As such, since its beginning in 2012, the workshop has rotated between venues in different fields:

- Bx 2012: Tallinn, Estonia, co-located with ETAPS
- Bx 2013: Rome, Italy, co-located with ETAPS
- Bx 2014: Athens, Greece, co-located with EDBT/ICDT
- Bx 2015: L'Aquila, Italy, co-located with STAF
- Bx 2016: Eindhoven, The Netherlands, co-located with ETAPS
- Bx 2017: Uppsala, Sweden, co-located with ETAPS
- Bx 2018: Nice, France, co-located with ‹Programming›

In 2019, Bx will be co-located with the Philadelphia Logic Week (PLW) in Philadelphia, PA, USA. The call for papers attracted 14 submissions, from which the program committee, after a careful reviewing and discussion process, selected for presentation at the workshop 7 papers (3 regular, 1 tool, and 3 short) and 4 talks:

- Full Papers
    - Mark Tullsen: *ASN.1 Encoding Schemes Done Right Using CMPCT*
    - Brendan Fong and Michael Johnson: *Lenses and Learners*
    - Michael Johnson and Robert Rosebrugh: *Multicategories of Multiary Lenses*

- Tool Paper
    - Nils Weidmann, Anthony Anjorin, Lars Fritsche, Gergely Varró, Andy Schürr, and Erhan Leblebici: *Incremental Bidirectional Model Transformation with eMoflon::IBeX*

- Short Papers
    - Mikaël Mayer and Ravi Chugh: *A Bidirectional Krivine Evaluator*
    - Anthony Anjorin, Enes Yigitbas, and Hermann Kaindl: *Consistent Runtime Adaptation of User Interfaces*
    - Michael Johnson and François Renaud: *Symmetric c-Lenses and Symmetric d-Lenses are Not Coextensive*

- Talks
    - Zinovy Diskin: *A Toolbox of Lenses: Dimensions of the Lens Design Space*
    - Anders Miltner, Solomon Maina, Kathleen Fisher, Benjamin Pierce, David Walker, and Steve Zdancewic: *Expanding the Power of Lens Synthesis*
    - Jacques Carette and Amr Sabry: *Optics and Type Equivalences*
    - Zinovy Diskin: *Reified Correspondences: A New Component of the Multiary Delta Lenses Framework*

In addition to these presentations, we are pleased to welcome Zachary Ives (University of Pennsylvania), who will give an invited talk on *Views, Update Propagation, and Provenance*.

We would like to thank the program committee and the external reviewers for their detailed reviews and careful consideration, and for the overall efficiency that enabled the tight schedule for reviewing. We would also like to thank all the authors and participants for helping us make Bx 2019 a success.

James Cheney and Hsiang-Shang Ko
Bx 2019 PC Co-Chairs

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