
IWC 2014

3rd International Workshop on Confluence

Proceedings

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July 13, 2014, Vienna, Austria

Preface

This report contains the proceedings of the *3rd International Workshop on Confluence (IWC 2014)*, which was held in Vienna on July 13, 2014. The workshop is affiliated with the Joint meeting of the 25th International Conference on Rewriting Techniques and Applications and the 12th International Conference on Typed Lambda Calculi and Applications (RTA-TLCA 2014), which is a part of the Federated Logic Conference (FLoC 2014) collocated with the Vienna Summer of Logic (VSL 2014). The 1st IWC took place in Nagoya (2012) and 2nd IWC in Eindhoven (2013).

Confluence provides a general notion of determinism and has been conceived as one of the central properties of rewriting. Confluence relates to many topics of rewriting (completion, modularity, termination, commutation, etc.) and had been investigated in many formalisms of rewriting such as first-order rewriting, lambda-calculi, higher-order rewriting, constrained rewriting, conditional rewriting, etc. Recently there is a renewed interest in confluence research, resulting in new techniques, tool supports, certification as well as new applications. The workshop promotes and stimulates research and collaboration on confluence and related properties. In addition to original contributions, the workshop solicited short versions of recently published articles and papers submitted elsewhere.

IWC 2014 received 7 submissions. Each submission was reviewed by 3 program committee members. After deliberations the program committee decided to accept all submissions, which are contained in this report. Apart from these contributed talks, the workshop had an invited talk by *Beniamino Accattoli* on *On the Formalization of Lambda-Calculus Confluence and Residuals*, and jointly with the 8th International Workshop on Computing with Terms and Graphs (TERMGRAPH 2014), an invited talk by *Samuel Mimram* on *An Introduction to Higher-Dimensional Rewriting Theory*. Their abstracts are also included in the report. Moreover, the 3rd Confluence Competition (CoCo 2014) was held during the workshop and the results are available at <http://coco.nue.riec.tohoku.ac.jp/2014/>.

Several persons helped to make IWC 2014 a success. We are grateful to the members of the program committee for their work. We also thank the members of VSL organizing committee for hosting IWC 2014 in VSL.

Sendai & Paris, June 2014

Takahito Aoto & Delia Kesner

Program Committee

Takahito Aoto	RIEC, Tohoku University	(co-chair)
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