Preface

We are pleased to present the *Proceedings of the UAI 2016 Workshop on Causality: Foundation to Application*, held in Jersey City, USA, on June 29, 2016. The workshop was part of the 32nd Conference on Uncertainty in Artificial Intelligence (UAI 2016), and is the fifth in a series of UAI workshops on causality. Previous editions include the *Causal Structure Learning workshop* (Catalina Island, UAI 2012), the *Approaches to Causal Structure Learning workshop* on *Causal Inference: Learning and Prediction* (Quebec City, UAI 2014) and the workshop on *Advances in Causal Inference* (Amsterdam, UAI 2015).

The aim of the workshop series is to bring together researchers from different backgrounds, interested in tackling the challenges of causal inference from experimental and observational data. UAI as a conference offers a venue for the latest methodological developments in causal inference. In this iteration of the workshop we tried to complement this strength with a focus on the foundations of causal inference on the one hand, and practical applications on the other. We envisioned this integration of the boundaries of the field as providing a basis for fruitful discussions among researchers who do not usually have offices on the same corridor. While foundations and applications were the focus, we welcomed contributions from all areas relating to the study of causality.

In total we received 13 submissions, each of which was peer-reviewed by two or more external reviewers and at least one member of the program committee. We accepted 4 for oral presentations, and another 4 as posters. In addition we were fortunate to have two very interesting invited talks by Richard Scheines and Benjamin Jantzen and a session on Open Problems. Additional material can be found on the workshop website:

http://people.hss.caltech.edu/~fde/UAI2016WS/

We want to thank the authors and presenters for their contributions, and the members of the program committee for their reviewing service. We also want to thank the organizing committee of the main UAI 2016 conference, in particular Dominik Janzing and Melanie Zeilinger, for their assistance, and Ricardo Silva for his support in his role as chair of the previous workshop. Finally, many thanks to the CEUR-WS team for hosting these proceedings.

February 2017

Frederick Eberhardt (chair) Elias Bareinboim Marloes Maathuis Joris Mooij Ricardo Silva

Organizing Committee

Frederick Eberhardt (chair)	California Institute of Technology
Ricardo Silva	University College London
Joris Mooij	University of Amsterdam
Marloes Maathuis	ETH Zurich
Elias Bareinboim	Purdue University

Program Committee

Krzysztof Chalupka, Tom Claassen, Robin Evans, Niels Richard Hansen, Antti Hyttinen, Jan Lemeire, Emilija Perkovic, Jonas Peters, Joseph Ramsey, Thomas Richardson, Eleni Sgouritsa, Cosma Shalizi, Shohei Shimizu, Ilya Shpitser, Peter Spirtes and Jiji Zhang.