

Preface

The Bayesian Modeling Applications Workshop (BMAW) has been held in conjunction with the annual Conference on Uncertainty in Artificial Intelligence twelve times since 2003. The workshop brings together researchers and practitioners who apply the technologies pioneered by the UAI community to address important real-world problems in a diverse set of fields. The workshop fosters discussion on the challenges of building applications, such as understanding and addressing stakeholder needs; integrating Bayesian models and tools into larger applications; validating models; interacting with users; construction of models through knowledge elicitation and learning; agile model and system development strategies; and deploying and managing webbased Bayesian applications.

The theme of the Workshop has adapted from year to year, as real-world problems change and technologies evolve to meet them. The frenzy to apply conventional machine learning methods for commercial applications has the danger of overwhelming Bayesian methods where they might be best applied. Bayesian methods face a similar challenge to the one they faced a decade ago by this community: To demonstrate their timeliness in the current environment of intelligent systems and a long tail of related decision and prediction tasks. This Workshop demonstrates that through several tools and current applications of Bayesian methods.

A call for papers encouraged submissions in a variety of domains, but not limited to any specific vertical market or discipline. Submissions were expected to foster discussion of critical issues within the community of practice. There were 12 submissions. Each submission was reviewed by at least 1, and on the average 3.1, program committee members. Eight papers were accepted and presented at the Workshop. Six of these appear full length in these proceedings. Two appear as extended abstract to facilitate future publication. Besides that, Dr. Brandon Malone has blessed the Workshop with an interesting invited talk on "Empirical Investigations into Bayesian Network Structure Learning Algorithms".

The Twelfth Annual BMAW was held on July 16, 2015, in Amsterdam, The Netherlands. About 20 people attended the Workshop, which consisted of eleven paper presentations, questions, and the accompanying discussions. Papers and presentations addressed Bayesian learning algorithms, tools, and several applications involving cost, benefit, risk, trading, forecasting, education, vehicle, and aircraft domains. We are grateful to the paper authors and presenters for their contributions, and to the program committee members for their careful efforts reviewing and commenting on submissions. We also appreciate the help EasyChair has always provided us and the organizational support provided by the UAI conference organizers, without whom the workshop would not be possible. Finally, we also thank Dr. Brandon Malone for accepting our invitation to present an invited talk.

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Amsterdam, The Netherlands

John Mark Agosta
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Workshop Co-Chairs

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