

2013 1st International Workshop on Assurance Cases for Software-Intensive Systems

(ASSURE 2013)

**San Francisco, California, USA
19 May 2013**



**IEEE Catalog Number: CFP13ZAI-POD
ISBN: 978-1-4673-6325-9**

Contents

Principles

Safety Cases: A Review of Challenges Zarrin Langari and Tom Maibaum — <i>McMaster University, Canada</i>	1
Measuring Assurance Case Confidence using Baconian Probabilities Charles B. Weinstock, John B. Goodenough, and Ari Z. Klein — <i>SEI, USA</i>	7

Notations and Techniques

An Evaluation of Argument Patterns to Reduce Pitfalls of Applying Assurance Case Shuichiro Yamamoto and Yutaka Matsuno — <i>Nagoya University, Japan</i>	12
Nuanced Term-Matching to Assist in Compositional Safety Assurance Katrina Attwood and Philippa Conmy — <i>University of York, UK</i>	18
An Implementation of GSN Community Standard Yutaka Matsuno and Shuichiro Yamamoto — <i>Nagoya University, Japan</i>	24

Applications

Architecting and Generalizing a Safety Case for Critical Condition Detection Software: An Experience Report Martin S. Feather and Lawrence Z. Markosian — <i>Jet Propulsion Laboratory, USA; SGT, USA</i>	29
Creating Safety Assurance Cases for Rebreather Systems Alma L. Juarez Dominguez, Bruce G. Partridge, and Jeffrey J. Joyce — <i>University of Waterloo, Canada; Shearwater Research, Canada; Critical Systems Labs, Canada</i>	34
Constructing Safety Assurance Cases for Medical Devices Arnab Ray and Rance Cleaveland — <i>Fraunhofer CESE, USA; University of Maryland, USA</i>	40