

PESARO 2015

The Fifth International Conference on Performance, Safety and Robustness in Complex Systems and Applications

April 19 - 24, 2015

Barcelona, Spain

PESARO 2015 Editors

Wolfgang Leister, Norsk Regnesentral (Norwegian Computing Center), Norway

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (4237) by International Academy, Research, and Industry Association (IARIA) Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (4237)

International Academy, Research, and Industry Association (IARIA) 412 Derby Way Wilmington, DE 19810

Phone: (408) 893-6407 Fax: (408) 527-6351

petre@iaria.org

Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: 845-758-0400 Fax: 845-758-2634

Email: curran@proceedings.com Web: www.proceedings.com

TABLE OF CONTENTS

PESARO 1: PERFORMANCE AND SAFETY

A Compositional Safety Specification Using a Contract-Based Design Methodology	1
M. Oertel, P. Battram, A. Rettberg	
Using Community Structure Information to Improve Complex Networks Robustness	8
C. Ghedini, C. Ribeiro	
Estimation of Job Execution Time in MapReduce Framework over GPU Clusters	15
Y. Hung, S. Cheng, C. Chen	
Towards Assessing Visitor Engagement in Science Centres and Museums	21
W. Leister, I. Tjostheim, T. Schulz, G. Joryd	
Author Index	