

# **12th Workshop on Analytic Algorithmics and Combinatorics 2015**

**(ANALCO15)**

**San Diego, California, USA  
4 January 2015**

ISBN: 978-1-63439-893-0

**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© (2015) by SIAM: Society for Industrial and Applied Mathematics  
All rights reserved.

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact SIAM: Society for Industrial and Applied Mathematics  
at the address below.

SIAM  
3600 Market Street, 6th Floor  
Philadelphia, PA 19104-2688 USA

Phone: (215) 382-9800  
Fax: (215) 386-7999

[siambooks@siam.org](mailto:siambooks@siam.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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

<b>On <math>k</math>-Connectivity and Minimum Vertex Degree in Random <math>s</math>-Intersection Graphs</b> .....	1
<i>Jun Zhao, Osman Yagan, Virgil Gligor</i>	
<b>On the Algorithmic Lovász Local Lemma and Acyclic Edge Coloring</b> .....	16
<i>Ioannis Giottis, Lefteris Kirousis, Kostas I. Psaromiligkos, Dimitrios M. Thilikos</i>	
<b>A Bound for the Diameter of Random Hyperbolic Graphs</b> .....	26
<i>Marcos Kiwi, Dieter Mitsche</i>	
<b>Analytic Samplers and the Combinatorial Rejection Method</b> .....	40
<i>Olivier Bodini, Jérémie Lumbroso, Nicolas Rolin</i>	
<b>Linear-time Generation of Inhomogeneous Random Directed Walks</b> .....	51
<i>Frédérique Bassino, Andrea Sportiello</i>	
<b>Cuts in Increasing Trees</b> .....	66
<i>Olivier Bodini, Antoine Genitrini</i>	
<b>Repeated Fringe Subtrees in Random Rooted Trees</b> .....	78
<i>Dimbinaina Ralaivaosaona, Stephan Wagner</i>	
<b>Bootstrap Percolation on Periodic Trees</b> .....	89
<i>Milan Bradonjic, Iraj Saniee</i>	
<b>Variance of Size in Regular Graph Tries</b> .....	97
<i>Philippe Jacquet, Abram Magner</i>	
<b>Lattice Paths of Slope <math>2/5</math></b> .....	105
<i>Cyril Banderier, Michael Wallner</i>	
<b>Analysis of Branch Misses in Quicksort</b> .....	114
<i>Conrado Martínez, Markus E. Nebel, Sebastian Wild</i>	
<b>On Distributed Cardinality Estimation: Random Arcs Recycled</b> .....	129
<i>Marcin Kardas, Mirosław Kutylowski, Jakub Lemiesz</i>	
<b>Author Index</b>	