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Wireless Algorithms, Systems, and Applications

7th International Conference, WASA 2012
Yellow Mountains, China, August 8-10, 2012
Proceedings

 Springer

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ISSN 0302-9743

e-ISSN 1611-3349

ISBN 978-3-642-31868-9

e-ISBN 978-3-642-31869-6

DOI 10.1007/978-3-642-31869-6

Springer Heidelberg Dordrecht London New York

Library of Congress Control Number: 2012942191

CR Subject Classification (1998): F.1, F.2, D.1-2, D.4, C.2.4, C.2, C.4, H.4

LNCS Sublibrary: SL 1 – Theoretical Computer Science and General Issues

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Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

Preface

Over the past few years, wireless communications and networks have enjoyed tremendous growth, driven by 3G/4G cellular technologies, the wide deployment of WiFi access points, and the proliferation of smart personal mobile devices. At the same time, end users are accustomed to bandwidth-hungry applications such as online video streaming, online gaming, e-mails with multimedia attachment, etc. Emergence of multimedia networking requires next-generation wireless networks to provision for not only basic Internet access but also quality of service guarantee, with seamless roaming across heterogeneous networks. Scalable solutions are crucial to handle large amount of mobile users; and they give rise to new challenges for both industry and academia with regard to resource allocation and scheduling, mobility management, distributed algorithms, cooperative networking, dynamic spectrum sharing, security and privacy, as well as scalable and energy-efficient network protocols.

The annual International Conference on Wireless Algorithms, Systems, and Applications (WASA) provides a forum for theoreticians, system and application designers, protocol developers, and practitioners to exchange ideas, share new findings, and discuss challenging issues for the current and next-generation wireless networks. Past WASA conferences were held in Xian (2006), Chicago (2007), Dallas (2008), Boston (2009), Beijing (2010), and Chendu (2011). The 7th WASA conference took place at the Yellow Mountains during August 8–10, 2012. The conference received 116 full submissions, out of which 32 were invited papers for six special topic sessions [Cognitive Radio Networks (CRN), Cyber-Physical Network Systems (CPNS), Mobile Handset Networking Systems (MHNS), Underwater and Radar Wireless Networks (URWN), and Wireless and Mobile Security (WMS)]. Among the remaining 84 submissions, 24 were accepted as regular papers, with an acceptance ratio of 28.6%. Each submission was rigorously reviewed by at least three Program Committee members.

We thank all the authors for submitting their papers to the conference. We also thank all the members of the Technical Program Committee and external referees for their help in completing the reviewing process under the tight time constraints. We especially thank Special Session Chairs Jun-Hong Cui, Qilian Liang, Xue Liu, Xiuzhen Chen, Dong Xuan, and Yanchao Zhang for inviting high-quality papers. We are grateful to the members of the Steering Committee and Organizing Committee for their involvement throughout the process. WASA 2012 was a true teamwork. Finally, many other people contributed to the success of WASA 2012, whose names cannot be listed here due to space limitation. However, we owe them our gratitude.

August 2012

Xinbing Wang
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WASA 2012 was organized by Beijing Jiaotong University, China, in cooperation with NSFC.

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