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Wireless Algorithms, Systems, and Applications

5th International Conference, WASA 2010
Beijing, China, August 15-17, 2010
Proceedings

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Library of Congress Control Number: 2010931794

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

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

ISSN	0302-9743
ISBN-10	3-642-14653-8 Springer Berlin Heidelberg New York
ISBN-13	978-3-642-14653-4 Springer Berlin Heidelberg New York

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Printed in Germany

Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India
Printed on acid-free paper 06/3180

Preface

Over the past decade, significant advances in wireless communication and computing technologies have led to the proliferation of reliable and ubiquitous infrastructure and infrastructureless wireless networks all over the world, as well as a diverse range of new applications, such as mobile social networking, and the surveillance and protection of critical infrastructures and environments. At the same time, these applications have raised new challenges ranging from the theoretical foundations of these systems, algorithms and protocol design, security and privacy to rigorous and systematic design and evaluation methodologies and new architectures for next-generation systems.

The annual International Conference on Wireless Algorithms, Systems, and Applications (WASA) provides a forum for researchers and practitioners worldwide 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), and Boston (2009).

WASA 2010, the 5th WASA conference, took place at the Beijing Wenjin International Hotel in Beijing during August 15–17, 2010. Each submission was reviewed by at least three Program Committee members, who in some cases were assisted by external referees. Following a rigorous review process, 29 (19 regular and 10 short) papers were selected for presentation at the conference. The best paper award was given to the paper titled “Approximate Optimization for Proportional Fair AP Association in Multi-rate WLANs” by Wei Li, Yong Cui, Shengling Wang, and Xiuzhen Cheng.

Four workshops were also organized along with WASA 2010: the Workshop on the Security of Wireless and Ad-hoc Networks (SWAN) 2010, the Workshop on Data Management and Network Control in Wireless Networks (DMNC), the First Workshop on Radar and Sonar Sensor Networks (RSSN), and the First Workshop on Compressive Sensing for Communications and Networking (CSCN). Eighteen papers from these workshops also appear in these proceedings. We thank the respective workshop organizers for their efforts in organizing these workshops and contributing to the success of the WASA 2010 conference.

We thank all the authors for submitting their papers to the conference. We also thank all the members of the Program Committee and external referees for their help in completing the reviewing process, especially under the tight time constraints. We are grateful to the members of the Steering Committee for their involvement, encouragement, and help throughout this process.

Finally, many other people contributed to the success of WASA 2010 directly and indirectly. Even though their names cannot be listed here because of space limitation, we owe them our gratitude.

August 2010

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