

Network of Excellence

NEWCOM#

Network of Excellence in Wireless Communications#

FP7 Contract Number: 318306



WP3.3 – Journal special issues, book and book chapters

D33.4

Final report on journal special issues, book chapters and books

Contractual Delivery Date:	October 31, 2015
Actual Delivery Date:	November 20, 2015
Responsible Beneficiary:	UCL
Contributing Beneficiaries:	PUT, CNRS, CTTC, UCL
Estimated Person Months:	4
Dissemination Level:	Public
Nature:	Report
Version:	1.0

PROPRIETARY RIGHTS STATEMENT

This document contains information, which is proprietary to the NEWCOM# Consortium.

This page is left blank intentionally

Document Information

Document ID:	D33.4
Version Date:	November 17, 2015
Total Number of Pages:	32
Abstract:	This deliverable provides an overview of the journal special issues, books and book chapters implemented by NEWCOM# researchers, or motivated by the NEWCOM# joint research activities. It also provides a detailed analysis of the outcomes of the dissemination activities from November 2014 to October 2015. Timing, composition of the editorial teams, topic and workpackage/task coverage, publisher and journal coverage are the main performance metrics considered in this final report.
Keywords:	Journal Special Issue, Book, Book Chapter, Guest Editor, Research Topic, Call for Papers, Impact Factor, Publisher.

Authors

Full Name	Beneficiary / Organisation	e-mail	Role
Luc Vandendorpe	UCL	luc.vandendorpe@uclouvain.be	Overall editor
Ivan Stupia	UCL	ivan.stupia@uclouvain.be	Overall editor
Florian Kaltenberg	CNRS/Eurecom	florian.kaltenberger@eurecom.fr	Contributor
Adrian Kliks	PUT	akliks@et.put.poznan.pl	Contributor

Reviewers

Full Name	Beneficiary / Organisation	e-mail	Date
Luis M. Correia	INOV	luis.correia@nov.pt	October 2, 2015
Carles Antón-Haro	CTTC	carles.anton@cttc.es	October 30, 2015

Version history

Issue	Date of Issue	Comments
0.1	September 22, 2015	First draft
0.2	October 5, 2015	Reviewed version
1.0	October 30, 2015	Final version

Executive Summary

Among the various tools used in the scientific community to disseminate research results, journal special issues, book and book chapters are nowadays well used and well understood.

This deliverable offers an overview of the journal special issues, book and book chapters inspired by NEWCOM# joint research activities from November 2014 to October 2015. Moreover, a complete list of the journal special issues inspired by NEWCOM# joint research activities is presented and analysed in this deliverable, with a special emphasis on aspects like composition of the editorial teams, editorial information about the journal, and topics addressed in each special issue.

The Journal Special Issues originated by NEWCOM# activities published or launched during the third year of the project are as follows:

- *Special Issue on Technical advances in the design and deployment of future heterogeneous networks*, EURASIP Journal on Wireless Communications and Networking.
- *Context-Aware Communications and Networking – An important paradigm for 5G networks*, Wireless Personal Communications (SPRINGER).

In the same period, the following book chapters have been written by NEWCOM# members:

- “*Aggregation of spectrum opportunities*”, in “Opportunistic Spectrum Sharing and White Space Access: The Practical Reality.” Wiley.
- “*OpenAirInterface and ExpressMIMO2 for spectrally agile communication*”, in “Opportunistic Spectrum Sharing and White Space Access: The Practical Reality.” Wiley.

In line with the previous deliverables, i.e. D33.2 and D33.3, after having described the dissemination activities conducted during the last 12 months, a global analysis of the activities carried out in WP3.3 is presented. The considered performance metrics are: timing, composition of the editorial teams, addressed topics, work package/task coverage and publisher/journal coverage. To date, a total of 8 JSIs, 2 books and 5 book chapters inspired by NEWCOM# joint research activities have been launched. Our analysis shows that all the WPs have participated in the editorial team of at least one JSI. Moreover, NEWCOM# institutions played a key role in keeping the focus on the topics addressed within the network of excellence with an average 55% of NEWCOM# members in the JSI editorial teams.

This page is left blank intentionally

Table of Content

1. Introduction.....	11
2. Overview on journal special issues, books and book chapters	13
2.1 Journal special issues	13
2.1.1 Context-Aware Communications and Networking – An important paradigm for 5G networks.	13
2.1.2 Experimental Evaluation in Wireless Communications.	15
2.2 Books and book chapters.....	17
2.2.1 Aggregation of spectrum opportunities (book chapter).....	17
2.2.2 OpenAirInterface and ExpressMIMO2 for spectrally agile communication (book chapter)	19
3. Analysis of journal special issues, books and book chapters inspired by NEWCOM#	21
3.1 Journal special issues, Books, and Books Chapter: Final list.	21
3.2 Journal special issues	22
3.3 Books and book chapters.....	24
4. Conclusions	25

This page is left blank intentionally

List of Figures

Figure 3.1. WPs coverage of planned/launched JSIs, Books and BCs.	23
Figure 3.2. NEWCOM# institutions involved in planned/launched JSIs, Books and BCs.	23
Figure 3.3. Distribution of planned/launched Books and BCs among the major publishers. .	24

List of Tables

Table 2.1. Wireless Personal Communications	15
Table 2.2. EURASIP Journal on Wireless Communications and Networking	17
Table 2.2. Opportunistic Spectrum Sharing and White Space Access: The Practical Reality	19
Table 3.1. Current Status of the Launched/Planned JSIs	22

List of Acronyms

3GPP	3rd Generation Partnership Project
5G	5th Generation
BC	Book Chapter
CACN	Context Aware Communication and Networking
CfP	Call for Papers
CoMP	Coordinated MultiPoint
CSI	Channel State Information
D2D	Device-to-Device
IoT	Internet of Things
JRA	Joint Research Activity
JSI	Journal Special Issue
LTE	Long Term Evolution
M2M	Machine-to-Machine
MIMO	Multiple-Input Multiple-Output
OFDM	Orthogonal Frequency Division Multiplexing
WiFi	Wireless Fidelity
TVWS	TV White Space
SON	Self-Organised Network
WP	Work Package

1. Introduction

In NEWCOM#, WP3.3 deals with «Journal special issues, books and book chapters». These tools have been identified as instruments to disseminate the research results produced by NEWCOM# researchers, as well as to increase the recognition of the network within the related international research community. The objectives of this WP3.3 were therefore as follows:

- To foster the design and implementation of Journal Special Issues in international peer reviewed journals, dealing with the main research topics addressed in NEWCOM#.
- To stimulate the participation of NEWCOM# researchers as prospective authors in the journal special issues organised either by NEWCOM# or by third parties.
- To trigger and organise the writing of book chapters and books. Book chapters will be devoted to the state-of-the-art and the recent advances of specific scientific and technological topics addressed by NEWCOM# researchers, while books will be reserved for the results of Track 1 of the project.

The first deliverable, produced at T0+6, was entitled “Report on relevant journal, editors, topics and main contributors”. It was conceived as a useful tool to NEWCOM# researchers in the process of launching their special issues. It provided NEWCOM# researchers with a list of major journals using this type of instrument as well as a collection of topics relevant to the NEWCOM# activities. Moreover, a list of publishers who could be potential candidates for e-publishing book chapters, and/or (e)-publishing complete books was presented.

D33.2 and D33.3, produced at T0+12 and T0+24 respectively, were aimed at analysing the first 12 and 24 months of activity within WP3.3 and to present a statistical analysis of the achievements of this WP.

This Deliverable, D33.4, entitled “Final report on planned/launched journal special issues, book chapters and books”, summarises the dissemination activities carried out during the third and last year of the project. After having presented the journal special issues, books and book chapters, launched/published from November 2014 to October 2015, the achievements of WP3.3 are illustrated through a detailed analysis. The considered performance metrics are: timing, composition of the editorial teams, addressed topics, work package/task coverage and publisher/journal coverage.

The rest of the document is organised as follows. Section 2.1 provides an overview of the journal special issues inspired by NEWCOM# joint research activities. Section 2.2 presents the book and book chapters written by NEWCOM# researchers. Section 3 highlights the achievements of the activities carried out in the context of WP3.3 through a detailed statistical analysis. Finally, Section 4 summarises some concluding remarks.

This page is left blank intentionally

2. Overview on journal special issues, books and book chapters

The objective of this section is to provide a summary of fundamental information concerning the Journal Special Issues (JSIs), books and Book Chapters (BCs) as of October 2015. The remainder of this section is organised as follows. In Section 2.1, we present the JSIs that have been launched during the last 12 months of joint research activities in NEWCOM#. For each JSI, we provide a list of topics of interest, a brief summary of the JSI's scope, the list of guest editors, some important dates, and some fundamental editorial information on the journal and/or publisher. Section 2.2 presents the books and BCs inspired by NEWCOM# activities that have been published from November 2014 to October 2015. For each planned/published book or BC, the reader is provided with a brief abstract of the book's (or BC's) content, the list of the authors, as well as some fundamental information about the book (title, length, year) and the publisher.

2.1 Journal special issues

2.1.1 Context-Aware Communications and Networking – An important paradigm for 5G networks.

The rapid development of communication networks has elevated the importance of reliable access to additional information about the radio environment and the precise characteristics of the deployment environment and network status. For many years the knowledge about the current status of the communication channel, known as, e.g., Channel State Information (CSI), has been used for link adaptation purposes, such as power and bit allocation algorithms. Moreover, access to CSI and devices' locations has driven the development of applications for advanced radio resource and interference management. In both cases, however, the following trade-off can be observed: the more detailed the information, the greater the amount of information that needs to be exchanged. This problem is even more crucial in some contexts, such as MIMO/MIMO-OFDM systems where precoding schemes have to rely, in general, on the information of the channel for each carrier and antenna. Furthermore, numerous applications are strongly dependent on the fast and reliable access to updated data, that can be either related to channel measurements or to other user- or network-related information. These include coordinated solutions such as Coordinated Multi-Point (CoMP) transmission and reception, applications of the mobile small-cells concept, self organising networks (SON), convergence between the 3GPP and non-3GPP networks for traffic offloading, development of various spectrum sharing strategies and/or cognitive radio solutions, direct communication approaches, or enhanced car-to-car or car-to-infrastructure communication. Various researchers have concentrated on the benefits that can be achieved by exploiting the presence of rich context information. As the advantages of such approach can be easily foreseen, the drawbacks can also be noted, including wireless security or reliability and accuracy of the stored data. All of these aspects have to be considered in developing new solutions that take advantages of the additional information. Another issue is created by more and more challenging expectations of the end-users, just to mention the need for detailed localisation information both indoors and outdoors, for data and multimedia delivery every time and everywhere, rapid file sharing in the form of cellular broadcasting, wireless car video, etc. All of these possible future applications will require reliable access to various sources of context information. This is also related to the further increase of back-haul traffic that is exchanged within the network or stored in cloud databases. The goal of this special issue is to concentrate on all aspects and future research directions related to context-aware communications.

2.1.1.1 Topics of interest

Original papers are solicited on topics of interest that include, but not limited to:

- Architectures for context-aware communication and networking (CACN)
- Information theory aspects of context-aware networking
- The role of rich context information in interference and radio resource management
- CACN solutions for dense heterogeneous wireless networks
- Front- and back-haul issues for context-aware networks
- Carrier aggregation and coordinated solutions for CACN
- Routing in CACN
- Security aspects in CACN
- 3GPP and non-3GPP convergence, including traffic offloading
- Context-aware communications for SON
- Context-aware communications for D2D communications (e.g., LTE-direct, WiFi-direct)
- The role of context information in cognitive radio and networks
- Spectrum sharing strategies in future networks
- Context information in car communications
- Context information in public service systems
- Big-data processing in CACN
- The role of databases (e.g., REMs) in future (5G) networks

The Tasks of NEWCOM# relevant to the topics listed above are:

- Task 1.2.3 Cooperative Sensing;
- Task 1.3.2 Low-interference, low-emission, radio interfaces;
- Task 1.3.3 Resource Allocation for optimised radio access;

2.1.1.2 Guest Editors

This special issue involves three guest editors, including one NEWCOM# member (PUT) and one researcher from a NEWCOM#’s Associate Partner (KCL). The full list of Guest Editors for this JSI is as follows:

- Adrian Kliks (lead guest editor)

Affiliation: Poznan University of Technology, Poland.

E-mail: a.kliks@et.put.poznan.pl

- Nikos Dimitriou

Affiliation: National Centre for Scientific Research "Demokritos", Greece.

E-mail: nikodim@iit.demokritos.gr

- Oliver Holland

Affiliation: King’s College London, UK.

E-mail: oliver.holland@kcl.ac.uk

2.1.1.3 Important dates

In the following, we outline the deadline for manuscript submission as well as other important dates.

Submission deadline: September 15th, 2015
First round of review: February 15th, 2016
Final notification: March 15th, 2016
Final Manuscript: March 31st, 2016

2.1.1.4 Journal/Publisher

Wireless Personal Communications is an archival, peer reviewed, scientific and technical journal addressing mobile communications and computing. It investigates theoretical, engineering, and experimental aspects of radio communications, voice, data, images, and multimedia.

Field of Interest: propagation; system models; speech and image coding; multiple access techniques; protocols performance evaluation; radio local area networks; networking and architectures.

Journal Title	Wireless Personal Communications
Publisher	Springer
ISSN	0929-6212
URL	http://www.springer.com/engineering/signals/journal/11277
Editor-in-chief	Ramjee Prasad
Issues per year	12
Type of papers	Transactions
2011 total cites	N/A
Impact factor	0.458
Eigenfactor score	N/A
Article influence score	N/A
Tool for managing reviews in special issues	Editorial Manager from Springer.
Contact person from NEWCOM#	N/A

Table 2.1. Wireless Personal Communications

2.1.2 Experimental Evaluation in Wireless Communications.

The importance of measurement results is often undervalued in signal processing and in particular in the wide application fields of wireless transmission. This special issue brings together research results obtained by measurements explaining shortcomings in current state of the art modelling and understanding of wireless communication systems.

2.1.2.1 Topics of interest

Original papers are solicited on topics of interest that include, but are not limited to:

- LTE-A
- Interference alignment techniques
- Vehicular transmissions
- Wireless sensor networks

The work packages of NEWCOM# relevant to the topics listed above are:

- WP 2.1 Radio Interfaces for next generation wireless systems;
- WP 2.2 Networking technologies for the Internet of Things (IoT) with mobile clouds;
- WP 2.3 Flexible communication terminals and networks.

2.1.2.2 Guest Editors

This special issue involves five guest editors, including two NEWCOM# members. The full list of Guest Editors for this JSI is as follows:

- Jose Antonio Garcia Naya

Affiliation: GTEC, University of A Coruna, Spain.

E-mail: jose.garcia.naya@udc.es

- Robert W. Heath Jr.

Affiliation: The University of Texas, Austin, USA.

E-mail: rheath@utexas.edu

- Florian Kaltenberger

Affiliation: Eurecom, France.

E-mail: florian.kaltenberger@eurecom.fr

- Markus Rupp (lead guest editor)

Affiliation: TU Wien, Austria.

E-mail: markus.rupp@tuwien.ac.at

- Javier Via

Affiliation: University of Cantabria, Spain.

E-mail: jvia@gtas.dicom.unican.es

2.1.2.3 Important dates

In the following, we outline the deadline for manuscript submission as well as other important dates.

Submission deadline:	October 31 st , 2014
Publication:	March 12 th , 2015

2.1.2.4 Journal/Publisher

The overall aim of the *EURASIP Journal on Wireless Communications and Networking* (EURASIP JWCN) is to bring together science and applications of wireless communications and networking technologies with emphasis on signal processing techniques and tools. It is directed at both practicing engineers and academic researchers. *EURASIP Journal on Wireless Communications and Networking* will highlight the continued growth and new challenges in wireless technology, for both application development and basic research. Articles should emphasise original results relating to the theory and/or applications of wireless communications and networking. Review articles, especially those emphasising multidisciplinary views of communications and networking, are also welcome. *EURASIP Journal on Wireless Communications and Networking* employs a paperless, electronic submission and evaluation system to promote a rapid turnaround in the peer-review process.

Field of interest: antenna systems and design; channel modelling and propagation; coding for wireless systems; multiuser and multiple access schemes; optical wireless

communications; resource allocation over wireless networks; security, authentication, and cryptography for wireless networks; signal processing techniques and tools; software and cognitive radio; wireless traffic and routing; ultra wide-band systems; vehicular networks; wireless multimedia communication; wireless sensor networks; wireless system architectures and applications.

Journal Title	EURASIP Journal on Wireless Communications and Networking
Publisher	Springer
ISSN	1687-1499
URL	http://www.springer.com/engineering/signals/journal/13638
Editor-in-chief	Luc Vandendorpe
Issues per year	12
Type of papers	Transactions and Tutorial
2011 total cites	936
Impact factor	0.873
Eigenfactor score	0.00686
Article influence score	0.442
Tool for managing reviews in special issues	SpringerOpen's online submission system
Contact person from NEWCOM#	C. Oestges, Jordi Pérez-Romero

Table 2.2. EURASIP Journal on Wireless Communications and Networking

2.2 Books and book chapters

2.2.1 Aggregation of spectrum opportunities (*book chapter*)

To satisfy the demand of future mobile networks, they will need to make use of as much spectrum as possible. However, spectrum for wireless communication is scarce, fragmented and the rules for its use are very heterogeneous. This chapter describes the state-of-the art in LTE-Advanced aggregation technologies, which are an effective means to exploit a large amount of spectrum. Further, the authors also show how carrier aggregation can facilitate access other parts of the spectrum, most notably unlicensed ISM bands and light-licensed TVWS bands.

2.2.1.1 Authors

The full list of authors and their affiliations for this book chapter is as follows:

- Florian Kaltenberger

Affiliation: Eurecom, France.

E-mail: florian.kaltenberger@eurecom.fr

- Theodoros A. Tsiftsis

Affiliation: Athena Research Innovation Centre, Industrial Systems Institute, Greece.

E-mail: tsiftsis@teiam.gr

- Fotis Foukalas

Affiliation: Athena Research Innovation Centre, Industrial Systems Institute, Greece.

E-mail: foukalas@isi.gr

- Shuyu Ping

Affiliation: King's College London, UK.

E-mail: shuyu.ping@kcl.ac.uk

- Oliver Holland

Affiliation: King's College London, UK.

E-mail: oliver.holland@kcl.ac.uk

Again, it encompasses contributions from researchers affiliated to associate partners of NEWCOM# (KCL, in this case).

2.2.1.2 About the book

This book addresses opportunistic spectrum sharing and white space access, being particularly mindful of practical considerations and solutions. In Part I, spectrum sharing implementation issues are considered in terms of hardware platforms and software architectures for realisation of flexible and spectrally agile transceivers. Part II addresses practical mechanisms supporting spectrum sharing, including spectrum sensing for opportunistic spectrum access, machine learning and decision making capabilities, aggregation of spectrum opportunities, and spectrally-agile radio waveforms.

Part III presents the ongoing work on policy and regulation for efficient and reliable spectrum sharing, including major recent steps forward in TV White Space (TVWS) regulation and associated geolocation database approaches, policy management aspects, and novel licensing schemes supporting spectrum sharing. In Part IV, business and economic aspects of spectrum sharing are considered, including spectrum value modelling, discussion of issues around disruptive innovation that are pertinent to opportunistic spectrum sharing and white space access, and business benefits assessment of the novel spectrum sharing regulatory proposal Licensed Shared Access. Part V discusses deployments of opportunistic spectrum sharing and white space access solutions in practice, including work on TVWS system implementations, standardisation activities, and development and testing of systems according to the standards.

- Discusses aspects of pioneering standards such as the IEEE 802.22 "Wi-Far" standard, the IEEE 802.11af "White-Fi" standard, the IEEE Dynamic Spectrum Access Networks Standards Committee standards, and the ETSI Reconfiguration Radio Systems standards.
- Investigates regulatory and regulatory-linked solutions assisting opportunistic spectrum sharing and white space access, including geo-location database approaches and licensing enhancements.
- Covers the pricing and value of spectrum, the economic effects and potentials of such technologies, and provides detailed business assessments of some particularly innovative regulatory proposals.

Book Title	Opportunistic Spectrum Sharing and White Space Access: The Practical Reality
Publisher	Wiley
ISSN	9781118893746
URL	http://onlinelibrary.wiley.com/book/10.1002/9781119057246
Editor	Oliver Holland, Hanna Bogucka, Arturas Medeisis
Year	2015
Pages	

Table 2.3. Opportunistic Spectrum Sharing and White Space Access: The Practical Reality

2.2.1.3 About the publisher

The following information comes from Wikipedia: “**John Wiley & Sons, Inc.**, also referred to as **Wiley**, is a global publishing company that specialises in academic publishing and markets its products to professionals and consumers, students and instructors in higher education, and researchers and practitioners in scientific, technical, medical, and scholarly fields. The company produces books, journals, and encyclopaedias, in print and electronically, as well as online products and services, training materials, and educational materials for undergraduate, graduate, and continuing education students.”

The catalogue of (e)books on “Mobile and wireless communications” can be found at the following link: <http://eu.wiley.com/WileyCDA/Section/id-350549.html>.

2.2.2 OpenAirInterface and ExpressMIMO2 for spectrally agile communication (book chapter)

This chapter provides an overview of the OpenAirInterface both in terms of its hardware and software elements and its usage in cognitive wireless networking applications based on long term evolution (LTE) technology. In particular, we show a design of a cognitive radio systems in the LTE framework that enables the deployment of cognitive radio in licensed bands, with no hardware modification and only small software changes in some specific frames for the secondary system. Moreover, we show the challenges and some solutions of operation of LTE in TV white spaces.

2.2.2.1 Authors

- Bassem Zayen

Affiliation: Eurecom, France.

E-mail: bassem.zayen@eurecom.fr

- Florian Kaltenberger

Affiliation: Eurecom, France.

E-mail: florian.kaltenberger@eurecom.fr

- Raymond Knopp

Affiliation: Eurecom, France.

E-mail: raymond.knopp@eurecom.fr

2.2.2.2 About the book

See above.

2.2.2.3 About the publisher

See above.

This page is left blank intentionally

3. Analysis of journal special issues, books and book chapters inspired by NEWCOM#

In this section, we present a statistical analysis of the achievements within WP3.3 illustrating different aspects of the JSIs, books and BCs implemented so far, with the specific aim of summarising the main achievements of this WP. Notably, we will first focus on the current status of each JSI, book and BCs (open for submissions, peer-review process on-going, ready to be published, published), thus providing a detailed chronicle of their life-cycles. A particular attention will be devoted to the percentage of NEWCOM# members of the editorial team or in the list of authors as well as the coverage of the various topics addressed and their relevance with the different WPs.

3.1 Journal special issues, Books, and Books Chapter: Final list.

In total, 8 journal special issues, 2 books and 5 book chapters have been launched.

The Journal Special Issues originated by NEWCOM# activities published or launched so far are:

- *Enabling 5G: Energy and Spectral Efficient Communication Systems*, Transactions on Emerging Telecommunications Technologies (John Wiley);
- *Indoor Localisation, Tracking, and Mapping with Heterogeneous Technology*, IEEE Transactions on Vehicular Technologies;
- *Machine-to-Machine: An Emerging Communication Paradigm*, published in the Transactions on Emerging Telecommunications Technologies;
- *Special Issue on Signal Processing Techniques for Anywhere, Anytime Positioning*, published in the EURASIP Journal on Advances in Signal Processing ;
- *JCN Special Issue on Advances in Channel Coding* to be published in the Journal of Communications and Networks;
- *Special Issue on Technical advances in the design and deployment of future heterogeneous networks* to be published in the EURASIP Journal on Wireless Communications and Networking.
- *Context-Aware Communications and Networking – An important paradigm for 5G networks* to be published in Wireless Personal Communications (SPRINGER).
- *Experimental Evaluation in Wireless Communications*, EURASIP Journal on Wireless Communications and Networking.

The published books are as follows:

- *Machine-to-Machine (M2M) Communications, Architecture, Performance and Applications*, Woodhead Publishing Ltd.
- *Opportunistic Spectrum Sharing and White Space Access: The Practical Reality* to be published by Wiley.

The following book chapters have been written by NEWCOM# members:

- “*Null-space precoder for dense 4G and beyond networks*” included in the book entitled *Resource Allocation and MIMO for 4G and Beyond*, Springer ;
- “*Future challenges in efficiently supporting M2M in the long term evolution (LTE) standards*”, in “*Machine-to-Machine (M2M) Communications, Architecture, Performance and Applications.*” Woodhead Publishing ;

- "An introduction to M2M", in "Machine-to-Machine (M2M) Communications, Architecture, Performance and Applications." Woodhead Publishing.
- "Aggregation of spectrum opportunities", in "Opportunistic Spectrum Sharing and White Space Access: The Practical Reality." Wiley.
- "OpenAirInterface and ExpressMIMO2 for spectrally agile communication", in "Opportunistic Spectrum Sharing and White Space Access: The Practical Reality." Wiley.

3.2 Journal special issues

A total of 8 journal special issues have been launched to date. As apparent from Table 3.1, none of them is in the "open for submissions" status. To date, all the JSIs launched except for the one entitled 'Context-Aware Communications and Networking' have been published. The average number of guest editors in the special issues launched so far is 3.87 with a healthy 55% coming from institutions that belong to NEWCOM#.

Figure 3.1 shows that all the scientific (i.e. Track 1 and Track 2) work packages have been involved in the preparation of JSIs. It is worth noting that multiple WPs can be involved in the editorial team of a single JSI, so that the average number of WPs involved per JSI is 1.625. Besides, Figure 3.2 shows that a good percentage of the NEWCOM# partners have been involved in the launch of those JSIs, books and book chapters.

Eventually, it is also worth noting the remarkable presence of non-European institutions (e.g. from the US and China) in the guest editorial boards, confirming that NEWCOM# institutions are proactive in creating collaborations with non-European partners.

Total number of JSIs	8
Open for submission	0
Peer-review on-going	1
Peer review completed	0
Published	7

Table 3.1. Current Status of the Launched/Planned JSIs.

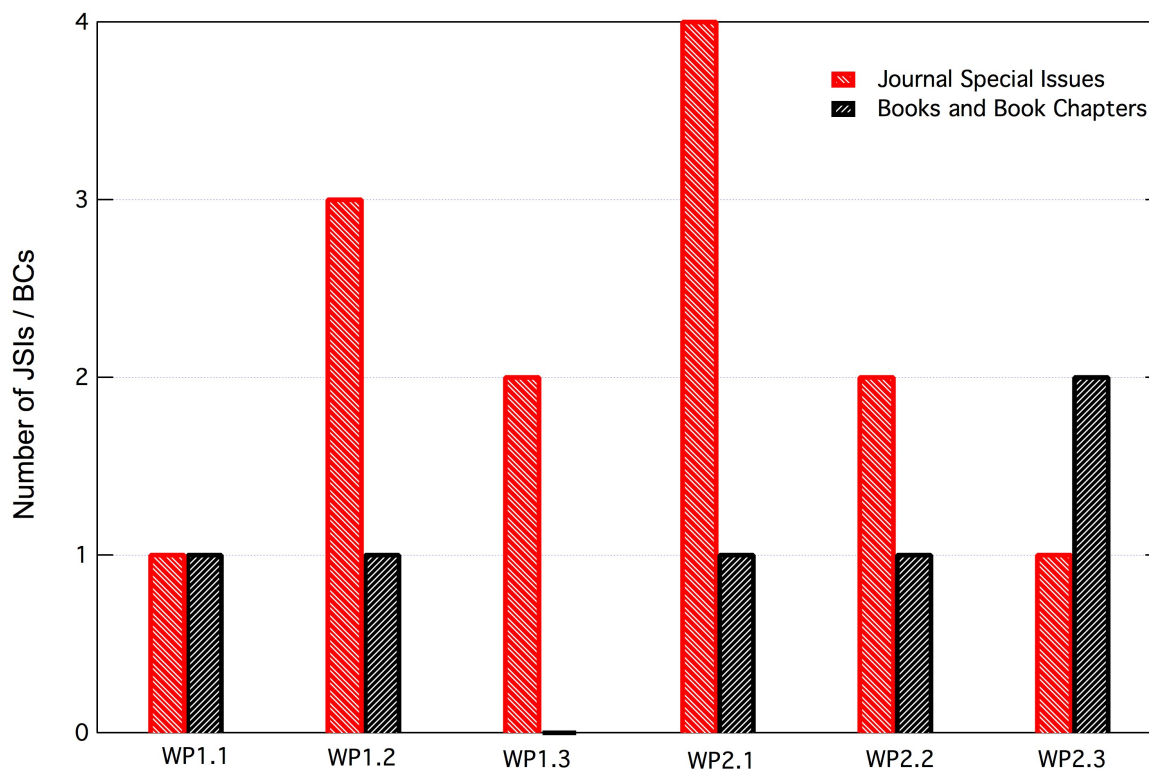


Figure 3.1. WPs coverage of planned/launched JSIs, Books and BCs.

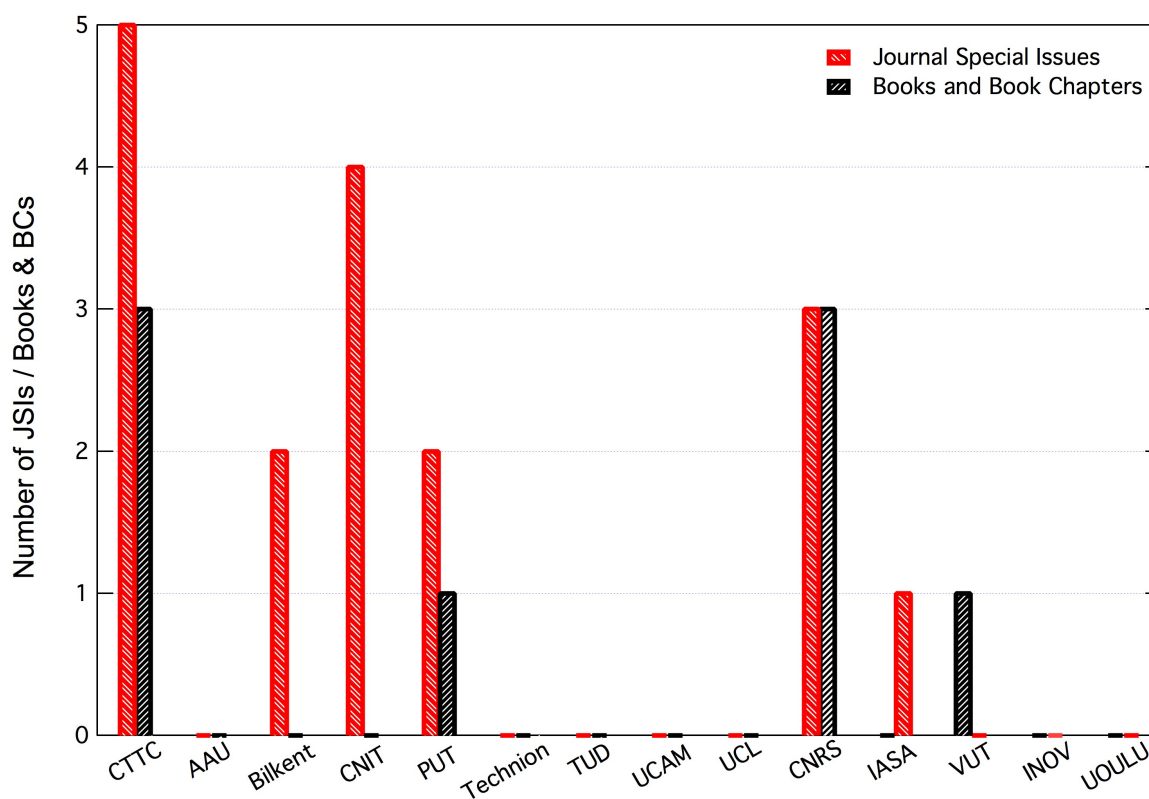


Figure 3.2. NEWCOM# institutions involved in planned/launched JSIs, Books and BCs.

3.3 Books and book chapters

NEWCOM# has motivated the publications of two books and five book chapters so far. Interestingly, the book entitled *Opportunistic Spectrum Sharing and White Space Access: The Practical Reality* (book) is a collaboration between NEWCOM# and the Australian ARC Communications Research Network (ACORN), and it has been published in the last quarter of 2014. Figure 3.4 shows the distribution of books and book chapters among the major publishers. Other figures considered in this analysis are the distribution of books and BCs authors across the WPs (Figure 3.1) and the NEWCOM# institutions represented in the list of authors (Figure 3.2).

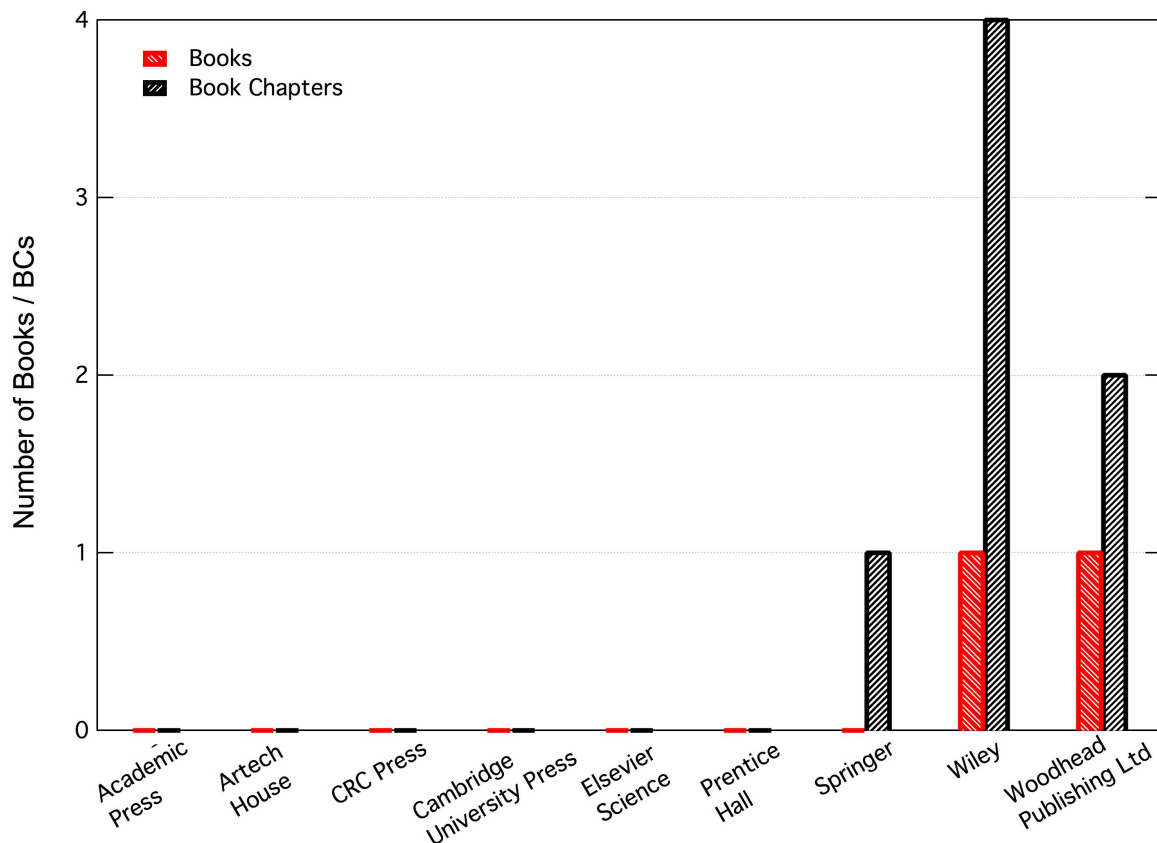


Figure 3.3. Distribution of planned/launched Books and BCs among the major publishers.

4. Conclusions

To date, a total of eight JSIs, five book chapters and two books inspired by NEWCOM# joint research activities have been implemented.

As far as the addressed topics are concerned, not surprisingly, 4G and 5G cellular communications and machine-to-machine communications are the most popular topics. Localisation and positioning also had a prominent role in NEWCOM#. Moreover, innovative subjects like context-aware communications have been approached, without neglecting advances in more traditional topics like channel coding.

After having described JSIs, books and BCs launched during the last 12 months, a global analysis of the activities carried out in WP3.3 has been presented. It is worth remarking that the average number of guest editors in the special issues launched so far is 3.87 with a 55% coming from NEWCOM# institutions. Thus, NEWCOM# institutions played a key role to keep the focus on the topics addressed within the network of excellence.

The effort of the entire network of excellence in disseminating the achievements of the N# joint research activities is further testified by the fact that all the work packages have been involved in the launch of JSI, books and book chapters.

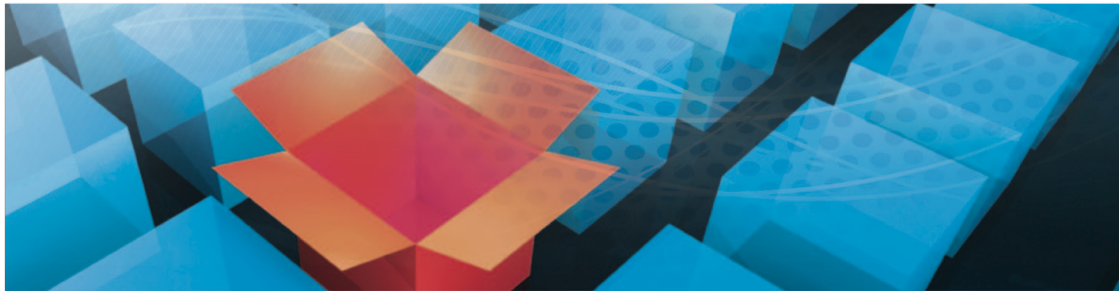
Finally, the conducted analysis indicates that also non-European institutions have been involved in launching of JSIs, books and BCs so far. Two of them are located in the US and one in Asia. Concerning the collaboration with other EC-founded project, it is worth mentioning the book entitled *Opportunistic Spectrum Sharing and White Space Access: The Practical Reality*, which is the result of a joint effort between NEWCOM# and ACORN members.

With regard to the JSIs launched so far, NEWCOM# has been acknowledged by including a statement in the Guest Editorial. JSIs, Books and BCs were publicised via various means, namely, Journals' webpage, the NEWCOM# webpage, the NEWCOM# Newsletter, distribution through the mailing lists of the guest editors.

This page is left blank intentionally

APPENDIX I : Call for Papers of NEWCOM++ Journal Special Issues (Third year)

(In chronological order)



EURASIP Journal on Wireless Communications and Networking

Special Issue on Experimental Evaluation in Wireless Communications

The importance of measurement results is often undervalued in signal processing and in particular in the wide application fields of wireless transmissions. This special issue will bring together research results obtained by measurements explaining shortcomings in current state of the art modeling and understanding of wireless communication systems.

Potential topics include, but are not limited to cellular transmissions such as:

- LTE-A
- Interference alignment techniques
- Vehicular transmissions
- Wireless sensor networks

Lead guest editor

Markus Rupp, Vienna University of Technology | mrupp@nt.tuwien.ac.at

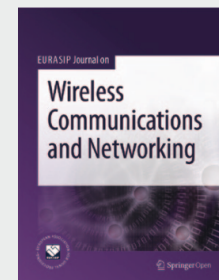
Guest editors

Jose A. Garcia-Naya, University of A Coruña | jagarcia@udc.es

Javier Via, University of Cantabria | jvia@gtas.dicom.unican.es

Florian Kaltenberger, Eurecom, Sophia Antipolis | Florian.Kaltenberger@eurecom.fr

Robert W. Heath Jr., The University of Texas in Austin | rheath@ece.utexas.edu



Call for
Papers

Submission instructions:

Before submission authors should carefully read over the Instructions for Authors, which are located at jwcn.eurasipjournals.com/authors/instructions. Prospective authors should submit an electronic copy of their complete manuscript through the SpringerOpen submission system at jwcn.eurasipjournals.com/manuscript according to the submission schedule. They should choose the correct Special Issue in the "sections" box upon submitting. In addition, they should specify the manuscript as a submission to the "Special Issue on Experimental Evaluation in Wireless Communications" in the cover letter. All submissions will undergo initial screening by the guest editors for fit to the theme of the Special Issue and prospects for successfully negotiating the review process.

Submission Schedule

Manuscripts due:
October 31, 2014

WIRELESS PERSONAL COMMUNICATIONS

Call For Papers for
Special Issue on

Context-Aware Communications and Networking – an Important Paradigm for 5G Networks

Overview

The rapid development of communication networks has elevated the importance of reliable access to additional information about the radio environment and the precise characteristics of the deployment environment and network status. For many years the knowledge about the current status of the communication channel, known as, e.g., Channel State Information (CSI), has been used for link adaptation purposes, such as power and bit allocation algorithms. Moreover, access to CSI and devices' locations has driven the development of applications for advanced radio resource and interference management. In both cases, however, the following trade-off can be observed: the more detailed the information, the greater the amount of information that needs to be exchanged. This problem is even more crucial in some contexts, such as MIMO/MIMO-OFDM systems where precoding schemes have to rely, in general, on the information of the channel for each carrier and antenna. Furthermore, numerous applications are strongly dependent on the fast and reliable access to updated data, that can be either related to channel measurements or to other user- or network-related information. These include coordinated solutions such as Coordinated Multi-Point (CoMP) transmission and reception, applications of the mobile small-cells concept, self-organizing networks (SON), convergence between the 3GPP and non-3GPP networks for traffic offloading, development of various spectrum sharing strategies and/or cognitive radio solutions, direct communication approaches, or enhanced car-to-car or car-to-infrastructure communication.

Various researchers have concentrated on the benefits that can be achieved by exploiting the presence of rich context information. As the advantages of such approach can be easily foreseen, the drawbacks can also be noted, including wireless security or reliability and accuracy of the stored data. All of these aspects have to be considered in developing new solutions that take advantages of the additional information.

Another issue is created by more and more challenging expectations of the end-users, just to mention the need for detailed localization information both indoors and outdoors, for data and multimedia delivery every time and everywhere, rapid file sharing in the form of cellular broadcasting, wireless car video, etc. All of these possible future applications will require reliable access to various sources of context information. This is also related to the further increase of back-haul traffic that is exchanged within the network or stored in cloud databases

The goal of this special issue is to concentrate on all aspects and future research directions related to context-aware communications.

Scope

Original papers are solicited on topics of interest that include, but are not limited to:

- Architectures for context-aware communication and networking (CACN)
- Information theory aspects of context-aware networking
- The role of rich context information in interference and radio resource management
- CACN solutions for dense heterogeneous wireless networks
- Front- and back-haul issues for context-aware networks
- Carrier aggregation and coordinated solutions for CACN



springer.com

- Routing in CACN
- Security aspects in CACN
- 3GPP and non-3GPP convergence, including traffic offloading
- Context-aware communications for SON
- Context-aware communications for D2D communications (e.g., LTE-direct, WiFi-direct)
- The role of context information in cognitive radio and networks
- Spectrum sharing strategies in future networks
- Context information in car communications
- Context information in public service systems
- Big-data processing in CACN
- The role of databases (e.g., REMs) in future (5G) networks

Submission procedure:

All papers have to be submitted using the following link and instructions presented on the target web-page:

www.editorialmanager.com/wire

Review and publication:

Only high quality papers with strongly positive reviews will be finally accepted for publication.

All accepted papers will be published in form of a bunch of papers with the dedicated Editorial.

Dates:

Submission deadline: 15 October 2015, 23.59 UTC

First Round of Reviews: 15 February 2016

Final notification of acceptance: 15 March 2016

Delivery of camera ready paper: 31 March 2016

Guest Editors:

- Dr Adrian Kliks, Poznan University of Technology, Poland, akliks@et.put.poznan.pl (Lead Guest editor)
- Dr Nikos Dimitriou, National Centre for Scientific Research "Demokritos", Greece, nikodim@iit.demokritos.gr
- Dr Oliver Holland, King's College London, UK, oliver.holland@kcl.ac.uk

Acknowledgements:

Adrian Kliks is supported by NEWCOM# European Project (<http://www.newcom-project.eu/>) as well as by the Polish Ministry of Science and Higher Education within the status activity task "Cognitive radio systems".

Nikos Dimitriou is supported by the "SYNAISTHISI" project, which is co-financed by the Greek Ministry of Education and the European RDF of the EC under the Operational Program "Competitiveness and Entrepreneurship".

Oliver Holland is supported by the "SOLDER" project, www.ict-solder.eu, FP7 grant agreement number 619687.

Comments and suggestions for the improvement of this document are most welcome and should be sent to:

project_office@newcom-project.eu



<http://www.newcom-project.eu>