



216715 NEWCOM⁺⁺
Deliverable DS.2.2
First Report on Launched Journal Special Issues

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Editor(s), (names and affiliations):	Carles Antón-Haro (CTTC)
Participating institutions:	CNIT, CTTC, CNRS, CEA-LETI, UCL/Gent, FTW/TU Wien.
Contributors: (names)	Carles Antón-Haro, Merouanne Debbah, Mischa Dohler, David Gesbert, Fulvio Gini, Christoph Mecklenbrauker, Xavier Mestre, Dominique Noguét, Claude Oestges, Ana Perez-Neira, Jordi Perez-Romero, Heidi Steendam.
Internal Reviewer(s) (names and affiliations):	Hikmet Sari (SUPELEC/CNRS)
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Abstract: This deliverable provides an overview and a preliminary analysis of the journal special issues implemented to date within NEWCOM⁺⁺. The emphasis is on aspects such as the current status and progress of those journal special issues, their relative timing and life-cycles, composition of the editorial teams, topic and work-package coverage, collaborations with sister projects, journal coverage, how NEWCOM⁺⁺ is acknowledged, what peer-review tools are often used or how the special issues are publicized, etc. On the basis of this analysis, some recommendations on how to carry out work in WPS.2 in the coming months are given. Besides, this deliverable also includes a succinct description of *MyReview*, a freeware tool for peer-review which was not included in deliverable DS2.1. The original Call for Papers are included as well, for reference purposes.

Keyword list: journal special issue, peer review, guest editor, research topic, publicize, mailing list, call for papers, impact factor.

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1. INTRODUCTION

In the context of NEWCOM⁺⁺, the objective of the Spreading Excellence workpackage WPS.2 (*Journal Special Issues*) is two-fold:

- 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 organized either by NEWCOM⁺⁺ or by third parties.

Doubtless, the organization of a series of Journal Special Issues (JSI) published by major international editors (IEEE, Hindawi, Wiley, Elsevier, etc.) and explicitly organized under the auspices of NEWCOM⁺⁺ is an excellent means to enhance the visibility of the research activity performed by the Network.

The first deliverable, *DS2.1 Report on relevant journals, topics and tools*, produced in T0+M6 was conceived as a handbook for guest editors in the process of launching their journal special issues, in particular for those in the initial stages of their careers. To that extent, DS2.1 encompassed (i) an exhaustive list of journals allowing for the publication of special issues; (ii) a collection of research topics that, being addressed in NEWCOM⁺⁺, are of interest to the whole scientific community and, hence, suitable for the organization of JSIs; (iii) an overview and benchmarking of existing on-line peer review tools (e.g. EDAS, START v2, etc.); and, finally, (iv) some suggestions on how to adequately publicize JSIs. Deliverable DS2.1 has been widely circulated (to various NEWCOM⁺⁺ e-mail exploders, partners' internal e-mail lists, NEWCOM⁺⁺'s Plone tool, etc), in the hope that it will further stimulate researchers to organize journal special issues.

The goal of this second deliverable, *DS2.2 Report on launched journal special issues*, is to conduct a preliminary analysis of the JSIs launched during the first 15 months of the NEWCOM⁺⁺ life and, on the basis of this, provide recommendations on how to carry out work in WPS.2 in the coming months. Besides, this deliverable is also a means to bring some updated information to the attention of the reader (so will be deliverables DS2.3 and DS2.4). In this direction, it includes a succinct description of one additional peer-review tool (freeware) which at the time of writing DS2.1 was not known to the participants of this work-package.

The remainder of this document is structured into four sections. Section 2 (*An Overview of On-going NEWCOM⁺⁺ Journal Special Issues*) briefly summarizes the scope of those JSIs along with some basic data such as a list of the Guest Editors in NEWCOM⁺⁺, important dates, etc. Next, in Section 3 (*A Preliminary Analysis of the Journal Special Issues Launched So Far*), we conduct a statistical analysis of various aspects in the JSIs launched to date, with emphasis in their current status, relative timing and life-cycle, NEWCOM⁺⁺ vs. non-NEWCOM⁺⁺ researchers in the editorial teams, topic and work-package coverage, etc. Data is mostly presented by means of charts, diagrams and tables. Section 4 (*Additional On-line Tools for Peer-Review*) provides a succinct description of *MyReview*, a fully-functional downloadable peer-review tool which is distributed under the GNU General Public Licence. Finally, we close this report with the main conclusions being summarized in Section 7.

2. AN OVERVIEW OF ON-GOING NEWCOM⁺⁺ JOURNAL SPECIAL ISSUES

As of March 2009, a total of nine Journal Special Issues have been launched by NEWCOM⁺⁺ researchers. In this section, we provide the reader with an overview of these special issues. More precisely, for each JSI, we briefly summarize its scope, give a list of the Guest Editors participating in NEWCOM⁺⁺ (with affiliations), outline the deadline for manuscript submission, and point out the corresponding journal and/or publisher. For further details, the interested reader is referred to Appendix I where we collect the original Call for Papers as produced by the teams of Guest Editors.

2.1. Synchronization in Wireless Communications

The objective of this special issue is to gather recent advances in the area of synchronization of wireless systems, spanning from theoretical analysis of synchronization schemes to practical implementation issues, from optimal synchronizers to low-complexity ad hoc synchronizers.

- Guest Editors from NEWCOM⁺⁺: Heidi Steendam (U. Ghent), Marco Luise (CNIT-U. Pisa), Erdal Panayirci (Kadir Has University).
- Deadline for Manuscript Submissions: July 1, 2008.
- Expected Publication Date: Q1/2009
- Journal/Publisher: Journal of Wireless Communications and Networks (Hindawi)

2.2. Advances in Propagation Modelling for Wireless Systems

This special issue is aimed to highlight the most recent advances in the area of propagation measurement and modelling with a number of original and research articles dealing with all aspects of propagation, including experimental characterization, channel sounding, theoretical modelling, hardware emulation and new communication technologies.

- Guest Editors from NEWCOM⁺⁺: Claude Oestges (UCL), Persefoni Kyritsi (Aalborg University).
- Deadline for Manuscript Submissions: August 1, 2008
- Expected Publication Date: Q1/2009
- Journal/Publisher: Journal of Wireless Communications and Networks (Hindawi)

2.3. Managing Complexity in Multiuser MIMO Systems

One of the main challenges in the realization of multiuser MIMO wireless systems - and in fact a critical factor for the success of MIMO in WiMAX, WiFi, and beyond 3G - is to manage the complexity of advanced MIMO concepts. Here, the goal is to devise tunable algorithms that entail a graceful trade-off between performance and implementation complexity. This special issue intends to promote this important new thread in MIMO research by collecting recent advances in the field.

- Guest Editors from NEWCOM⁺⁺: Christoph Mecklenbrauker (TU Wien, formerly with FTW), Gerald Matz (TU Wien)
- Deadline for Manuscript Submissions: September 1, 2008
- Expected Publication Date: Q3/2009
- Journal/Publisher: Journal of Selected Topics in Signal Processing (IEEE)

2.4. Wireless Physical Layer Security

In this journal special issue, the Guest Editors intend to gather a collection of papers reflecting recent advances in the area of wireless physical layer security from the theoretical, such as the analysis of the secrecy capacity of various channel models, to more practical interests such as the development of codes and other communication schemes that can provide security in real networks.

- Guest Editors from NEWCOM⁺⁺: Merouane Debbah (CNRS-Supélec, Shlomo Shamai (Technion)
- Deadline for Manuscript Submissions: October 1, 2008
- Expected Publication Date: Q2/2009
- Journal/Publisher: Journal of Wireless Communications and Networks (Hindawi)

2.5. Cooperative Communications in Wireless Networks

The demand for new generation wireless networks has spurred a vibrant flurry of research on cooperative communications during the last few years. Nevertheless, most of the cooperative systems proposed so far are based on ideal assumptions, such as unfeasible synchronization constraints between the relay nodes or the availability of perfect channel state information at the resource allocation unit. The objective of this special issue is to contribute to this twofold objective: to advance in the understanding of cooperative transmission and to explore practical limitations of realistic cooperative systems.

- Guest Editors from NEWCOM⁺⁺: Xavier Mestre (CTTC), Laura Cottatellucci (CNRS-Eurecom)
- Deadline for Manuscript Submissions: November 1, 2008
- Expected Publication Date: Q2/2009
- Journal/Publisher: Journal of Wireless Communications and Networks (Hindawi)

2.6. Multiuser MIMO Transmission with Limited Feedback, Cooperation and Coordination

Although using multiuser MIMO within individual cells has considerable potential, even larger performance gains can be achieved by using multi user MIMO across cooperative base stations. Significant gains can even be achieved by some limited level of local coordination: for example, neighboring base stations might jointly choose beamforming directions in order to achieve interference alignment. In this general setting, there are fundamental challenges associated with transceiver design, limited channel information, and cooperative mechanisms that this special issue plans to address.

- Guest Editors from NEWCOM⁺⁺: Ana Perez-Neira (UPC), Christoph Mecklenbrauker (TU Wien), Markus Rupp (TU Wien)
- Deadline for Manuscript Submissions: December 1, 2008
- Expected Publication Date: Q2/2009
- Journal/Publisher: Journal on Advances in Signal Processing (Hindawi)

2.7. Simple Wireless Sensor Networking Solutions

The main purpose of this special issue is twofold: (i) to promote novel approaches to analyze, design and optimize large-scale energy and complexity constrained WSNs; and (ii) to expose novel, readily deployable protocol solutions that are of low complexity and hence facilitate very cheap network deployment and maintenance, with the ultimate goal of obtaining a useful and practically viable wireless sensor networking solution.

- Guest Editors from NEWCOM⁺⁺: Mischa Dohler (CTTC)
- Deadline for Manuscript Submissions:
- Expected Publication Date: Q3/2010
- Journal/Publisher: Journal of Selected Areas in Communications (IEEE)

2.8. Selected Papers from the Workshop on Synergies in Communications and Localization (SyCoLo 2009)

The International Workshop on Synergies in Communications and Localization (SyCoLo 2009) will be held in conjunction with the 2009 IEEE International Conference on Communications (ICC 2009)

in Dresden, Germany. This workshop aims at inspiring the development of new position-aware procedures to enhance the efficiency of communication networks and of new positioning algorithms based both on (outdoor or indoor) wireless communications and on satellite navigation systems. The Guest Editors will invite the authors of the most promising papers in the workshop to submit an extended version of their papers to a journal.

- Guest Editors from NEWCOM⁺⁺: Fulvio Gini (CNIT-U. Pisa), Marco Luise (CNIT-U. Pisa)
- Deadline for Manuscript Submissions: August 1, 2009
- Expected Publication Date: Q1/2010
- Journal/Publisher: International Journal on Observation and Navigation (Hindawi)

2.9. Cooperative Communications in MIMO Cellular Networks

A powerful weapon against fading and interference, cooperative communication, finds itself particularly well suited to cellular communications because of pre-existing backhaul infrastructure linking the base stations together. Nevertheless the application of such theoretical concepts into real-life systems still hinges on a number of roadblocks: cost of signaling overhead required for device cooperation, the design of cooperation schemes with limited complexity, robustness to a lack of precise channel state information, etc. These topics, together with fundamental advances in the underlying theory of cellular MIMO-based cooperation, form the core of this special issue.

- Guest Editors from NEWCOM⁺⁺: David Gesbert (CNRS-Eurecom), Shlomo Shamai (Technion)
- Deadline for Manuscript Submissions: November 1, 2009
- Expected Publication Date: Q4/2010
- Journal/Publisher: Journal of Selected Areas in Communications (IEEE)

3. A PRELIMINARY ANALYSIS OF THE JOURNAL SPECIAL ISSUES LAUNCHED SO FAR

In this section, we conduct a statistical analysis of various aspects in the JSIs launched to date. More precisely, we focus on the current status of those JSIs (open for submissions, peer-review process on-going, ready to be published), their relative timing and life-cycles, the composition of the editorial team (size, NEWCOM⁺⁺ vs. non-NEWCOM⁺⁺ researchers), topic and WP coverage, networking aspects, acknowledgement strategies adopted so far, collaboration with sister projects like COST2100 and ACoRN, etc.

Since the activity in WPS.2 has not reached its steady state yet, the analysis in this section should be regarded as *preliminary* and mainly aimed at revealing *trends*. Still, we point out both the strengths and, also, those aspects that deserve further attention. In deliverable DS2.3 (due at T0+M24), an in-depth analysis and status tracking will follow and, if needed, specific actions will be triggered.

3.1. Current Status

As commented in Section 2, a total of 9 journal special issues have been launched to date. Their current status is shown in Figure 1 below. Out of them, three special issues are now open for manuscript submission and, from informal conversations, a few more will follow in the coming months (not shown in the chart). This will constitute an excellent basis for the dissemination of project results generated within the various NEWCOM⁺⁺ work-packages.

Whereas no NEWCOM⁺⁺ special issue has been published yet, the review process for two of them is over now. More precisely, the tables of contents have already been finalized and the special issues are ready to be published (expected publication in Q1/2009 or Q2/2009)

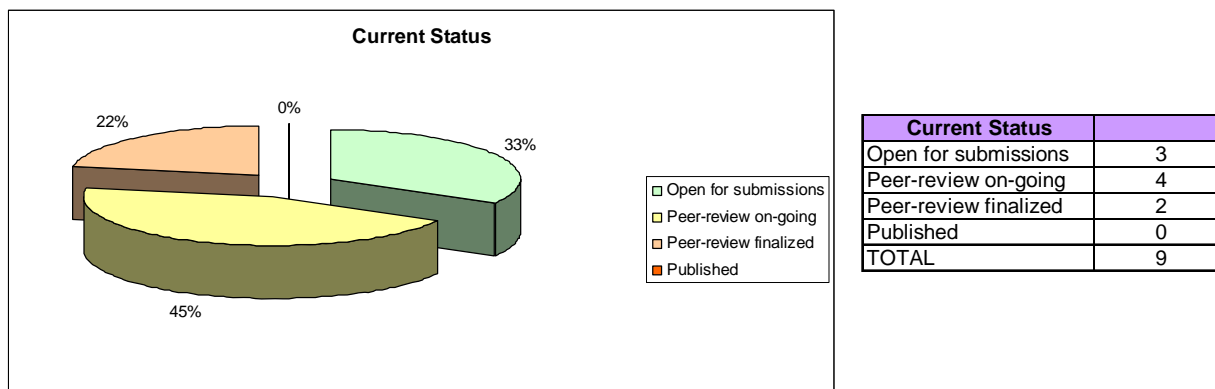


Figure 1: Current status of on-going journal special issues.

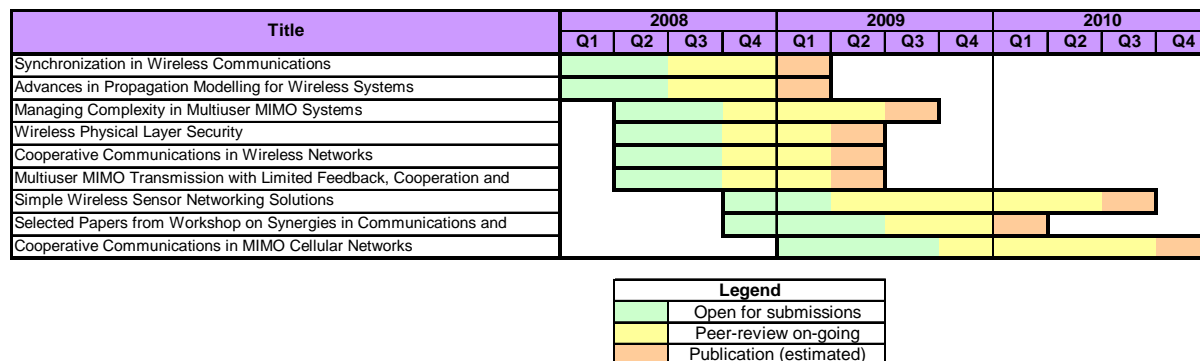
Finally, there are four special issues for which the peer review process is still on-going. Their publication is expected to take place in Q2/2009 (3 cases) or Q3/2009 (1 case), as detailed in the next section. This means that by project's half life (end of June 2009) a total of 5 NEWCOM⁺⁺ special issues will have already come into light. Bearing in mind the life-cycle and logistic considerations detailed in the next section, the current status can be regarded as very encouraging.

3.2. Timing and life-cycle

Figure 2 shows the timing of the NEWCOM⁺⁺ Journal Special issues described in Section 2. As expected, the number of special issues in 2008 (first year of NEWCOM⁺⁺) is relatively low. This is mainly due to the non-negligible overhead associated with the launch of such special issues: gathering of the editorial team, definition of scope, negotiation with editorial boards, formal approval by the publisher or society, etc. However, Figure 2 suggests that in the next two years we will witness a steady increase in the number of such special issues.

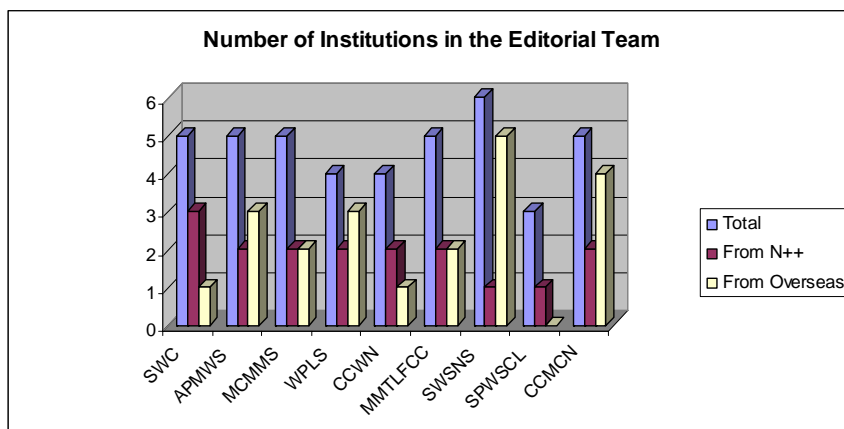
As far as the life cycle is concerned, the special issues launched so far have been/are open for submissions on the order of 6 to 9 months. After that, the peer review process starts. For Hindawi Journals, the average duration of the peer review process is six months whereas in the case of IEEE journals it is almost one year. Finally, special issues are scheduled for publication which, in some cases, can be delayed for a few weeks or months, depending to the congestion in the publication pipeline. Therefore, the publication dates mentioned in the Call for Papers should always be regarded as tentative.

Figure 2: Gantt diagram of on-going NEWCOM⁺⁺ Journal Special issues.



3.3. Composition of the Editorial Team

The average number of Guest Editors in the special issues launched so far is 4.7, which is in agreement with common practice. Out of them, a healthy 40.5% come from NEWCOM⁺⁺ institutions, on average. Bearing in mind that a geographical balance between European and non-European institutions (e.g. from the US, Asia, Australia, etc) is more than advisable in order to attract authors from all over the world, this means that NEWCOM⁺⁺ institutions are playing a key role in the definition of such journal special issues.



Title	Acronym	Total	From N++	From Overseas
Synchronization in Wireless Communications	SWC	5	3	1
Advances in Propagation Modelling for Wireless Systems	APMWS	5	2	3
Managing Complexity in Multiuser MIMO Systems	MCMMS	5	2	2
Wireless Physical Layer Security	WPLS	4	2	3
Cooperative Communications in Wireless Networks	CCWN	4	2	1
Multiuser MIMO Transmission with Limited Feedback, Cooperation and Simple Wireless Sensor Networking Solutions	MMTLFCC	5	2	2
Selected Papers from Workshop on Synergies in Communications and Cooperative Communications in MIMO Cellular Networks	SPWSCL	3	1	0
	CCMCN	5	2	4

Figure 3: Involvement of NEWCOM⁺⁺ partners and third parties in the editorial teams.

Figure 3 above these lines, provides some more fine-grained information on the balance between NEWCOM⁺⁺ and other groups from overseas. No doubt, such collaborations will greatly facilitate an increased impact of NEWCOM⁺⁺ research work both within and outside Europe.

Finally, from the collection of Call for Papers included in Appendix I, it is self-evident that most of the collaborations in journal special issues are with institutions in the US. However, there are some encouraging examples of partnerships with Japanese and Australian institutions, as well.

3.4. Per-Partner and per-Work-Package Involvement in Editorial Teams

Figures 4 and 5 below show the per-partner and per-work-package involvement in the on-going NEWCOM⁺⁺ special issues, respectively. Unsurprisingly, the distribution is not homogeneous due to the fact that, as far as statistical analysis is concerned, the number of JSIs launched so far is still low. This could change by the end of this year when, hopefully, WPS.2 will reach a steady state.

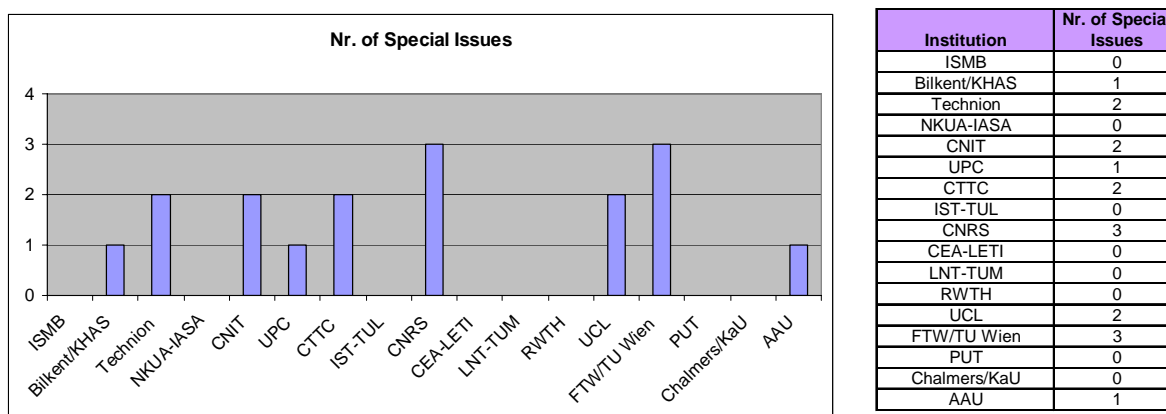


Figure 4: Per-partner involvement in the editorial teams.

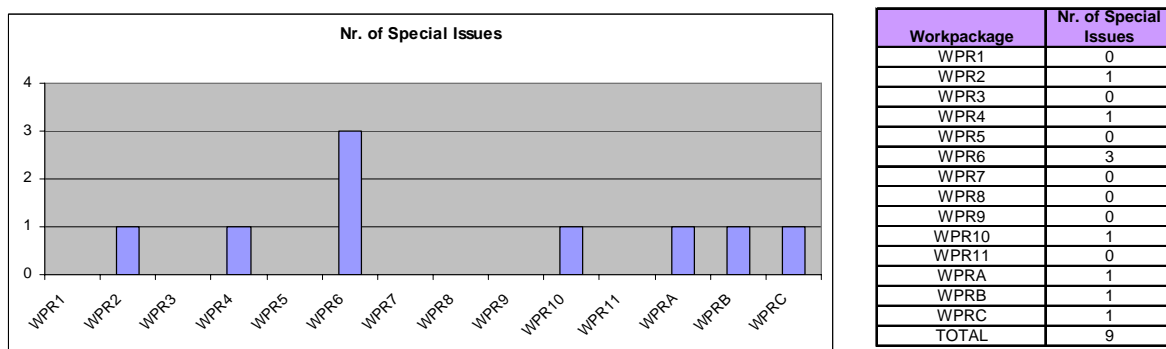


Figure 5: Work-package coverage of on-going NEWCOM⁺⁺ journal special issues.

Moreover, one should also bear in mind that there are substantial differences in terms of (i) proposed efforts over WPs; and (ii) size of and number of integrated researchers over institutions in NEWCOM⁺⁺. Consequently, a more in-depth analysis of the above results requires some normalization factor to be introduced. This will be done in the in-depth analysis to be carried out in subsequent deliverables.

Finally, it is worth noting that WPS.2 is not only aimed at fostering the launch of special issues related but, also, at encouraging NEWCOM⁺⁺ researchers to participate as authors in them. This important aspect will also be taken into consideration in the future, when it comes to assessing the degree of involvement of NEWCOM⁺⁺ institutions in WPS.2. To that extent, we will analyze the corresponding Tables of Contents of the published NEWCOM⁺⁺ special issues which will also be included as an Appendix in forthcoming deliverables.

3.5. Collaborations with COST2100 and ACoRN partners (and beyond)

NEWCOM⁺⁺ has signed a Memorandum of Understanding (MoU) with the Australian Network of Excellence ACoRN (Australian Research Council Communications Research Network, <http://www.acorn.net.au>) and with the COST action “Pervasive Mobile & Ambient Wireless Communications” (COST2100, <http://www.cost2100.org>), respectively. The above-mentioned MoUs aim to formalize the scientific cooperation between projects and by doing so stimulate joint actions such as the exchange of researchers and PhD students, joint involvement in thematic workshops and symposia, attendance to summer/winter schools and PhD courses organized by peer projects, elaboration of joint project proposals, access to course portfolio, etc. To date, a number of activities in this list have already been jointly undertaken with partners both in ACoRN and COST2100.

Doubtless, the joint organization of journal special issues also falls under the umbrella or such MoUs and constitutes an ideal means to strengthen the links with those communities. The table below illustrates the current status of such collaborations.

Special Issue		Institutions from Sister Projects in Editorial Team	
Title	Acronym	COST2100	ACoRN
Synchronization in Wireless Communications	SWC	x	
Advances in Propagation Modelling for Wireless Systems	APMWS	x	
Managing Complexity in Multiuser MIMO Systems	MCMMS	x	
Wireless Physical Layer Security	WPLS	x	
Cooperative Communications in Wireless Networks	CCWN	x	
Multiuser MIMO Transmission with Limited Feedback, Cod	MMTLFCC	x	
Simple Wireless Sensor Networking Solutions	SWSNS	x	
Selected Papers from Workshop on Synergies in Communi	SPWSCL		
Cooperative Communications in MIMO Cellular Networks	CCMCN		x

Table 1: Collaboration with COST2100 and ACoRN.

A preliminary analysis of this table reveals that the number of collaborations with institutions in COST2100 is substantially higher. Doubtless, the fact that the COST2100 Chairperson is also member of NEWCOM⁺⁺, the existence of a history of past collaborations and work in common, along with geographical aspects, greatly facilitate such collaborations. In this direction, a substantial effort will be made in the coming months to encourage the launch of joint special issues with ACoRN partners. The fact that a number of on-going research collaborations are already in place is expected to help crystallize the advent of such special issues.

Beyond COST2100 and ACoRN, partners in NEWCOM⁺⁺ actively collaborate in the launch of journal special issues with other institutions from overseas (see Section 3.2 above).

3.6. Journal Coverage

The special issues that have been launched so far are under the umbrella of the IEEE and EURASIP societies. In addition, Table 2 below provides additional details on the specific journals where they will be/have been published:

Journal			Number of Special Issues
Title	Society	Acronym	
Journal of Wireless Communications and Networks	EURASIP	JWCN	4
Journal of Selected Topics in Signal Processing	IEEE	JSTSP	1
Journal on Advances in Signal Processing	EURASIP	JASP	1
Journal of Selected Areas in Communications	IEEE	JSAC	2
International Journal on Observation and Navigation	EURASIP	IJNO	1

Table 2: Mapping of NEWCOM⁺⁺ special issues on journals and societies.

In the light of these results, several comments can be made. First, one observes that both US-based and EU-based publications have been targeted so far. Second, there is also a good balance between special issues in some IEEE publications with high impact factor (such as JSAC or JSTSP) and other EURASIP with lower publication latency. Clearly, this allows for a timely dissemination of project

results which can be more easily achieved during the NoE lifetime. Besides, it is worth noting that Hindawi grants free on-line access to its journals (as is the case for the EURASIP journals listed above) which also favours a timely and widespread dissemination of the research work.

Finally, in order to have a more homogeneous coverage of NEWCOM⁺⁺ research topics (which span a number of research fields), it would be advisable to enlarge the portfolio of targeted journals and/or publishers. As an example, some other ACM publications could also be considered for upcoming special issues. In this respect, a non-exhaustive but very complete list can be found in deliverable DS2.1 (*Report on relevant journals, topics and tools*).

3.7. Acknowledgements to NEWCOM⁺⁺

In deliverable DS2.1, a number of acknowledging formulae were defined for NEWCOM⁺⁺ special issues, namely, (i) to explicitly mention NEWCOM⁺⁺ in the text of the corresponding Call for Papers; (ii) to insert the NEWCOM⁺⁺ logo on the cover of the journal special issue; (iii) to explicitly mention NEWCOM⁺⁺ in the title of the special issue (e.g. ‘Newcom⁺⁺ Special Issue on...’); (iv) to include a sentence in the guest editorial such as ‘This special issue has been organized with the support of/under the auspices/... of the FP7 Network of Excellence NEWCOM⁺⁺ (216715)’; (v) to point out in the guest editorial that (part of) the team of Guest Editors are involved in NEWCOM⁺⁺; (vi) to stress, where appropriate, which papers in the Special Issue have been produced by researchers who actively participate in NEWCOM⁺⁺; etc.

As far as project acknowledgement is concerned, Table 3 below these lines reflects the current status of this issue.

Special Issue		ACK to N++		
Title	Acronym	CfP	Guest Editorial	Journal Title or logo on Cover
Synchronization in Wireless Communications	SWC	x		
Advances in Propagation Modelling for Wireless Systems	APMWS		x	
Managing Complexity in Multiuser MIMO Systems	MCMMS		x	
Wireless Physical Layer Security	WPLS	x		
Cooperative Communications in Wireless Networks	CCWN		x	
Multiuser MIMO Transmission with Limited Feedback, Cod	MMTLFCC	x		
Simple Wireless Sensor Networking Solutions	SWSNS		x	
Selected Papers from Workshop on Synergies in Communi	SPWSCL	x		
Cooperative Communications in MIMO Cellular Networks	CCMCN		x	

Table 3: Acknowledgment to NEWCOM⁺⁺ in journal special issues

To date, several Guest Editors have encountered difficulties in acknowledging NEWCOM⁺⁺ in the Call for Papers. This is mainly motivated by the editorial constraints enforced by the publisher by which, for example, no project name is allowed in CfPs of IEEE journals. Besides, sometimes Guest editors need to find a trade-off in terms of acknowledgement formulae when non-NEWCOM⁺⁺ Editors are members of the team (who could also be involved in other research projects or are simply reluctant to acknowledge projects at all). However, the situation is typically very different when it comes to Guest Editorials. In this case, publishers and co-editors are very sensitive to either the inclusion of acknowledgment sentences or to pinpoint papers in the special issue which are authored by researchers from a given community.

Finally, it should be pointed out that as of today no NEWCOM⁺⁺ journal special issue has been published yet. Therefore, crosses under ‘Guest Editorial’ in the table above denote oral agreements with the corresponding Guest Editors.

3.8. Usage of on-line peer-review tools and means to publicize journal special issues

Sections 4 and 5 in deliverable DS2.1 (*Report on relevant journals, topics and tools*) were respectively devoted to provide prospective Guest Editors with (i) an overview of some existing on-line peer review tools available today (e.g. EDAS, TrackChair, Manuscript Central, etc) ; and (ii) instruction on

how to adequately publicize special issues, this including a list of useful e-mail exploders and related websites.

Hereafter, we carry out a non-exhaustive analysis of the tools that have been actually used by these first teams of Guest Editors. As reported by them, the most popular ways of announcing NEWCOM⁺⁺ special issues are the following:

- Portals and websites:
 - Newcom⁺⁺ portal (<http://www.newcom-project.eu>).
 - COST 2100 website (<http://www.cost2100.org>, under ‘announcements’).
 - Society webpages (e.g. <http://www.signalprocessingsociety.org>, <http://www.ieee-security.org/CFP/Cipher-Call-for-Papers.html>).
 - Publisher’s or journal webpages (<http://www.hindawi.com/journals/wcn/osi.html>, <http://www.jsac.ucsd.edu/Calls/>).
 - Personal webpages (<http://www.cttc.es/home/mdohler>).
- Newsletters:
 - ACoRN newsletter (www.acorn.net.au/newsletter/08/ACoRN_Newsletter_042008.pdf).
 - Societies’ Newsletters (IEEE Signal Processing Society Electronic Newsletter, EURASIP Newsletter).
- Mailing lists:
 - Mailing lists run by various IEEE technical committees such as computer communications (<http://www.comsoc.org/~tccc/>), communications theory (<http://www.comsoc.org/~comtheory/>), security and privacy (<http://www.ieee-security.org/CFP/past-journals.html>) or Ad Hoc and Sensor Networks (<http://list.trlab.ca/listinfo.cgi/ahsntc-mailing-list-trlab.ca>), etc.
 - WTC (<http://bbcr.uwaterloo.ca/~wtc/messagelogin.html>)
 - Personal mailing lists.
 - NEWCOM⁺⁺ mailing lists (e.g. wpXX@newcom-project.eu)
- Publisher’s search engines (e.g. <http://ieeexplore.ieee.org>).
- Etc.

Besides, these special issues were also widely publicized by leaving flyers in the related conferences where Guest Editors regularly participate in the months preceding the submission deadline.

Concerning the on-line tool for peer-review that were used by the editorial teams, EDAS (<http://edas.info>) and other proprietary manuscript tracking systems such as Hindawi’s MTS (<http://mts.hindawi.com/>) or the one run by the IEEE Journal of Selected Topics on Signal Processing (https://dspstest.ece.umd.edu/jstsp/php_scripts/login.php) were the most popular ones.

4. ADDITIONAL ON-LINE TOOLS FOR PEER-REVIEW

The advent of on-line peer review tools has greatly facilitated the automation of the whole peer-review process (both for journal and conference publications). For this reason, in deliverable DS2.1 we provided the prospective Guest Editors with an overview of some existing on-line peer review tools available today. In particular, we focused our attention on EDAS, START v2, Manuscript Central by Scholar One, and TrackChair. We compared these tools in terms of market share, number of functionalities, suitability for journal and/or conference papers, cost, etc.

Recently, one additional tool, **MyReview**, has been identified in the context of work-package WPS.2. Interestingly, this tool is provided at no cost to the potential users and, unlike Start v2, the version which is available for download is (i) fully functional and (ii) it has the support of the community of developers. For all the above, we have decided to produce an updated version of the section on on-line tools for peer-review in the previous deliverable.

4.1. MyReview

MyReview (<http://myreview.sourceforge.net/>) is a paper review system programmed in PHP and MySQL. It implements classical functionalities like paper submission, reviewer assignment, selection of papers, sending mails to different user groups (e.g. program committee members, authors), etc.

In a nutshell, there are three distinctive roles in the system. As an **author**, you can submit an abstract for a paper that you intend to submit using the abstract submission interface (which is password-protected). You can then access the paper submission interface to upload the file of your complete paper. As a **reviewer**, you can access the reviewing interface, download your papers, submit and update your reviews, etc. As an **administrator**, you can (i) use the set up interface to configure the system; and (ii) carry out the activities associated to a TPC (Technical Program Committee) Chair role, namely, create new reviewers, enter research topics, evaluation criteria, ask reviewers to select their preferred topics, assign manually or automatically papers to reviewers, consult the marks of papers, send mails to different lists, etc

PC chair menu

Submission phase		
SQL queries	List of submitted papers	List of authors
Compute preferences and conflicts	Send a mail asking for reviewers' preferences	Compute the automatic assignment of papers
Manual assignment - check and modify		
Selection phase		
Status of papers (see reviews and assign a status to papers)		
List of papers with status "Reject"		
List of papers with status "Accept"		
List of papers with status "Accept (Poster)"		
List of papers with status "Accept (short paper)"		
Close the selection phase		
Camera-ready phase		
Define the slots of the conference	Define the sessions of the conference	Assign accepted papers to sessions
Conference program	Produce the Latex documents (proceedings, booklets, etc.)	
Registration		
Payment modes	Registration choices	List of attendees
Mails		
Send Free mail	to each reviewer.	<input type="button" value="Check template"/>
Send Free mail	to each author.	<input type="button" value="Check template"/>
Send a free mail to all the authors of accepted papers		
Note: a paper is considered "accepted" if a camera-ready version is required for its status.		

Figure 6: PC Chair menu in *MyReview*.

A demo site can be reached from the MyReview webpage in such a way that the potential users of this peer-review system can try it (and test it) before installing the software package in their own server. The MyReview program is distributed under the GNU General Public Licence and can be downloaded from http://sourceforge.net/project/platformdownload.php?group_id=159071.

5. CONCLUSIONS

To date, a total of nine NEWCOM⁺⁺ journal special issues have been launched. Out of them, three JSIs are now open for manuscript submission and two are finalized and ready for publication (expected Q1-Q2/2009). Taking into consideration the unavoidable latency associated with the launch of JSIs and the time spent on the elaboration of deliverable DS2.1 (finalized in M6), the current status can be regarded as very encouraging. Moreover, a steady increase in the number of such special issues can be expected over the next two years.

Concerning the average duration of the whole peer-review process, it is on the order of six months for Hindawi journals whereas it takes almost one year in IEEE journals. The average number of Guest Editors in the special issues launched so far is 4.7 with a healthy 40.5% coming from NEWCOM⁺⁺ institutions (European institutions roughly amount to some 50% of the total). Consequently, NEWCOM⁺⁺ institutions are in a position to play a key role in the definition of their scope and steer the focus towards the topics addressed by the NoE. Other institutions from overseas (US, Japan, Australia) are often present in the editorial teams. This illustrates the networking capabilities of NEWCOM⁺⁺ researchers on one hand and facilitates an increased impact of NEWCOM⁺⁺ research work both within and outside Europe on the other hand. The analysis indicates that the participation of non-European institutions is dominated by the US. In the coming months, it would be desirable to increase the number of partnerships with Japanese and Australian institutions. As for collaborations with sister projects, the analysis reveals that the number of collaborations with institutions in COST2100 is substantially higher than with institutions in ACoRN.

The per-partner and per-work-package involvement in the on-going NEWCOM⁺⁺ special issues is not homogeneous yet. This is likely to change when WPS.2 will reach a steady state. Besides, the size of the different institutions and the per-work-package efforts should be taken into consideration, as well. Analysis of the participation of work-packages and institutions as authors in the JSIs is postponed to DS2.3 since no data is available yet.

As for journals and publishers, there is a good geographical spread and balance between (i) special issues in IEEE publications with high impact factor; and (ii) other EURASIP journals with lower publication latency (which, in some cases, grant free on-line access to journals). For upcoming JSIs, some other ACM publications could be considered as well.

As far as the acknowledgment to NEWCOM⁺⁺ in the JSIs is concerned, the inclusion of a statement in the Guest Editorial seems to be the most flexible formula. However, acknowledging NEWCOM⁺⁺ in the Call for Papers has also been an alternative in several occasions.

Finally, concerning the on-line tool for peer-review, EDAS and other proprietary manuscript tracking systems such as Hindawi's MTS appear to be the most popular ones.

APPENDIX I: CALL FOR PAPERS OF NEWCOM⁺⁺ JOURNAL SPECIAL ISSUES

(in chronological order)

Special Issue on Synchronization in Wireless Communications

Call for Papers

The last decade has witnessed an immense increase of wireless communications services to keep pace with the ever increasing demand for higher data rates combined with higher mobility. To satisfy this demand for higher data rates, the throughput over the existing transmission media had to be increased. Several techniques were proposed to boost up the data rate: multicarrier systems to combat selective fading, ultrawide band (UWB) communications systems to share the spectrum with other users, MIMO transmissions to increase the capacity of wireless links, iteratively decodable codes (e.g., turbo codes and LDPC codes) to improve the quality of the link, cognitive radios, and so forth.

To function properly, the receiver must synchronize with the incoming signal. The accuracy of the synchronization will determine whether the communication system is able to perform well. The receiver needs to determine at which time instants the incoming signal has to be sampled (timing synchronization), and for bandpass communications the receiver needs to adapt the frequency and phase of its local carrier oscillator with those of the received signal (carrier synchronization). However, most of the existing communication systems operate under hostile conditions: low SNR, strong fading, and (multiuser) interference, which make the acquisition of the synchronization parameters burdensome. Therefore, synchronization is considered in general as a challenging task.

The objective of this special issue (whose preparation is also carried out under the auspices of the EC Network of Excellence in Wireless Communications NEWCOM⁺⁺) is to gather recent advances in the area of synchronization of wireless systems, spanning from theoretical analysis of synchronization schemes to practical implementation issues, from optimal synchronizers to low-complexity ad hoc synchronizers. Suitable topics for this special issue include but are not limited to:

- Carrier phase and frequency offset estimation and compensation
- Doppler shift frequency synchronization
- Phase noise estimation and compensation
- Timing recovery
- Sampling clock offset impairments and detection
- Frame synchronization
- Joint carrier and timing synchronization

- Joint synchronization and channel estimation
- Data-aided, non-data-aided and decision directed synchronization algorithms
- Feedforward or feedback synchronization algorithms
- Turbo-synchronization
- Synchronization for MIMO receivers
- Signal processing for (distributed) synchronization
- Acquisition and tracking performance analysis
- Spreading code acquisition and tracking
- Theoretical bounds on synchronizer performance
- Design of efficient training sequences or pilots

Authors should follow the EURASIP Journal on Wireless Communications and Networking manuscript format described at the journal site <http://www.hindawi.com/journals/wcn/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/>, according to the following timetable.

Manuscript Due	July 1, 2008
First Round of Reviews	October 1, 2008
Publication Date	January 1, 2009

Guest Editors

Heidi Steendam, Department of Telecommunications and Information Processing (TELIN), Ghent University, 9000 Gent, Belgium; heidi.steendam@telin.ugent.be

Mounir Ghogho, School of Electronic and Electrical Engineering, Leeds University, 182 Woodhouse Lane, Leeds LS2 9JT, UK; m.ghogho@leeds.ac.uk

Marco Luise, Department of Information Engineering, University of Pisa, 56122 Pisa, Italy; m.luise@iet.unipi.it

Erdal Panayirci, Department of Electronics Engineering, Kadir Has University, 34083 Istanbul, Turkey; eeapanay@khas.edu.tr

Erchin Serpedin, Department of Electrical Engineering, A&M University, College Station, TX 77840, USA; serpedin@ece.tamu.edu

EURASIP Journal on Wireless Communications and Networking

Special Issue on Advances in Propagation Modelling for Wireless Systems

Call for Papers

The true challenge for new communication technologies is to “make the thing work” in real-world wireless channels. System designers classically focus on the impact of the radio channel on the received signals and use propagation models for testing and evaluation of receiver designs and transmission schemes. Yet, the needs for such models evolve as new applications emerge with different bandwidths, terminal mobility, higher carrier frequencies, new antennas, and so forth. Furthermore, channel characterization also yields the fundamental ties to classical electromagnetics and physics, as well as the answers to some crucial questions in communication and information theory. In particular, it is of outstanding importance for designing transmission schemes which are efficient in terms of power or spectrum management.

The objective of this special issue is to highlight the most recent advances in the area of propagation measurement and modeling. Original and research articles are solicited in all aspects of propagation, including experimental characterization, channel sounding, theoretical modeling, hardware emulation and new communication technologies.

Topics include, but are not limited to:

- 4G channel measurements and modeling
- Fixed wireless access (including outdoor-to-indoor)
- UWB propagation
- 60 GHz channel measurements and modeling
- Propagation models for wireless sensor networks, including RFIDs
- Spectrum sensing and channel prediction for cognitive radio
- Intra/inter vehicle and vehicle-to-infrastructure channel characterization
- Body area propagation modeling
- Double-directional and MIMO channels
- Multiuser MIMO channels
- Multi-hop and cooperative channels
- Polarimetric channels
- Shadowing correlation modeling
- Temporal variations in wireless channels
- Frequency and range dependence of parameters

- High-resolution algorithms for parameter extraction
- Channel prediction and tracking
- Numerical methods in wireless channel modeling
- Advances in channel emulation and sounding

Authors should follow the EURASIP Journal on Wireless Communications and Networking manuscript format described at the journal site <http://www.hindawi.com/journals/wcn/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/>, according to the following timetable.

Manuscript Due	August 1, 2008
First Round of Reviews	November 1, 2008
Publication Date	February 1, 2009

Guest Editors

Claude Oestges, Microwave Laboratory, Université Catholique de Louvain, 1348 Louvain-la-Neuve, Belgium; claud.oestges@uclouvain.be

Michael Jensen, Department of Electrical & Computer Engineering, Brigham Young University, Provo, UT 84602, USA; jensen@ee.byu.edu

Persefoni Kyritsi, Antennas, Propagation and Radio Networking Section, Aalborg University, 9100 Aalborg, Denmark; persa@es.aau.dk

Mansoor Shafi, Telecom New Zealand, Wellington, New Zealand; mansoor.shafi@telecom.co.nz

Jun-ichi Takada, Department of International Development Engineering, Tokyo Institute of Technology, Tokyo, Japan; takada@ide.titech.ac.jp

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<http://www.hindawi.com>

Call for Papers
IEEE Signal Processing Society
IEEE Journal of Selected Topics in Signal Processing

Special Issue on Managing Complexity in Multiuser MIMO Systems

A decade has passed since the introduction of multiple-input multiple-output (MIMO) wireless communication systems. There are now thousands of research papers providing capacity results and proposing algorithms for transmit side and receive side processing. On the commercial side, standardization initiatives have led to inclusion of MIMO schemes in WiMAX, WiFi, and 3GPP/3GPP2. First MIMO products are available for the WiFi market. However, current practical MIMO implementations are still far from theoretical performance limits because system designers are experiencing difficulties to reconcile the complexity of sophisticated MIMO techniques with the implementation constraints imposed by existing hardware. Thus, one of the main challenges in the realization of multiuser MIMO wireless systems - and in fact a critical factor for the success of MIMO in WiMAX, WiFi, and beyond 3G - is to manage the complexity of advanced MIMO concepts. Here, the goal is to devise tunable algorithms that entail a graceful trade-off between performance and implementation complexity. This special issue intends to promote this important new thread in MIMO research by collecting recent advances in the field.

Original papers, previously unpublished and not currently under review by another journal, are solicited for this special issue. The scope of this special issue includes, but is not limited to:

- MIMO detection
- sphere decoding (soft and hard)
- lattice reduction techniques
- multiuser detection in MIMO
- precoding and beamforming for multiuser MIMO
- antenna selection
- MIMO-OFDM(A)
- iterative receivers
- low-complexity space-time codes
- channel estimation and synchronization
- impact of channel state information
- feedback, adaptive modulation and coding

Submission information is available at <http://www.ece.byu.edu/jstsp>. Prospective authors are required to follow the Author's Guide for manuscript preparation of the IEEE Transactions on Signal Processing at <http://ewh.ieee.org/soc/sp/sps/tsp>. Manuscripts will be peer reviewed according to the standard IEEE process.

Manuscript submission due: **Sept. 1, 2008**
 First review completed: Nov. 15, 2008
 Revised manuscript due: Jan. 1, 2009
 Second review completed: Feb. 15, 2009
 Final manuscript due: March 15, 2009

Lead guest editor:

Gerald Matz, Vienna University of Technology, Vienna, Austria, gmatz@nt.tuwien.ac.at

Guest editors:

Robert Calderbank, Princeton University, Princeton (NJ), USA, calderbk@princeton.edu
 Christoph Mecklenbräuker, Forschungszentrum Telekommunikation Wien (ftw.), Vienna, Austria, cfm@ftw.at
 Ayman Naguib, Qualcomm Inc., San Diego (CA), USA, anaguib@qualcomm.com
 Emanuele Viterbo, Università della Calabria, Rende, Italy, viterbo@deis.unical.it

EURASIP Journal on Wireless Communications and Networking

Special Issue on Wireless Physical Layer Security

Call for Papers

Security is a critical issue in multiuser wireless networks in which secure transmissions are becoming increasingly difficult to obtain in highly mobile and distributed environments. In his seminal works of the late 1940s, Shannon formalized the concepts of capacity (as a transmission efficiency measure) and equivocation (as a measure of secrecy). Together with Wyner's fundamental formulation of the wiretap channel in the 1970s, this work laid the groundwork for the area of wireless physical layer security. Interest in this area has exploded in recent years, motivated by the rise of wireless networking in general and by the increasing interest in large mobile networks with light infrastructure, which are extremely difficult to secure by traditional methods.

The objective of this special issue (whose preparation is carried out under the auspices of the EC Network of Excellence in Wireless Communications NEWCOM⁺⁺) is to gather recent advances in the area of wireless physical layer security from the theoretical, such as the analysis of the secrecy capacity of various channel models, to more practical interests such as the development of codes and other communication schemes that can provide security in real networks. Suitable topics for this special issue dedicated to physical layer security include but are not limited to:

- Opportunistic secrecy
- The wiretap channel with feedback
- Authentication over the wiretap channel
- Information theoretic secrecy of fading channels
- Secrecy through public discussion
- Wireless key distribution
- Multiuser channels with secrecy constraints
- MIMO wiretap channels
- Relay-eavesdropper channel
- Scheduling for secure communications
- Secure communication with jamming
- Game theoretic approaches for secrecy
- Codes for secure transmission
- Secure compression
- Cognitive approaches for secrecy
- Physical Secrecy and Common Randomness
- Secrecy with channel uncertainty

Authors should follow the EURASIP Journal on Wireless Communications and Networking manuscript format described at the journal site <http://www.hindawi.com/journals/wcn/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/>, according to the following timetable.

Manuscript Due	October 1, 2008
First Round of Reviews	January 1, 2009
Publication Date	April 1, 2009

Guest Editors

Mérouane Debbah, Alcatel-Lucent Chair on Flexible Radio, Supélec, 3 rue Joliot-Curie, 91192 Gif-sur-Yvette Cedex, France; merouane.debbah@supélec.fr

Hesham El-Gamal, Department of Electrical & Computer Engineering, Ohio State University, 205 Dreesse Labs, 2015 Neil Avenue Columbus, OH 43210, USA; helgamal@ece.osu.edu

H. Vincent Poor, Department of Electrical Engineering, Princeton University, Engineering Quadrangle, Olden Street, Princeton, NJ 08544, USA; poor@princeton.edu

Shlomo Shamai, Department of Electrical Engineering, Technion, Technion City, Haifa 32000, Israel; sshlomo@ee.technion.ac.il

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<http://www.hindawi.com>

EURASIP Journal on Wireless Communications and Networking

Special Issue on Cooperative Communications in Wireless Networks

Call for Papers

Next generation wireless networks will go beyond the point-to-point or point-to-multipoint paradigms of classical cellular networks. They will be based on complex interactions, where the involved nodes cooperate with one another in order to improve the performance of their own communication and that of the global network. Cooperative communications based on relaying nodes have emerged as a promising approach to increase spectral and power efficiency, network coverage, and reduce outage probability. Similarly to multiantenna transceivers, relays provide diversity by creating multiple replicas of the signal of interest. By properly coordinating different spatially distributed nodes in a wireless system, one can effectively synthesize a virtual antenna array that emulates the operation of a multiantenna transceiver.

The demand for new generation wireless networks has spurred a vibrant flurry of research on cooperative communications during the last few years. Nevertheless, many aspects of cooperative communications are open problems. Furthermore, most of the cooperative systems proposed so far are based on ideal assumptions, such as unfeasible synchronization constraints between the relay nodes or the availability of perfect channel state information at the resource allocation unit. There is a need for research on practical ways of realizing cooperative schemes based on realistic assumptions.

The objective of this special issue is to contribute to this twofold objective: to advance in the understanding of cooperative transmission and to explore practical limitations of realistic cooperative systems. Topics of interest for this special issue include:

- Information theoretic aspects of cooperative diversity
- Finite-SNR and asymptotic (diversity/multiplexing) performance analysis
- Scaling laws for cooperative networks
- Relaying strategies and protocols
- Relay selection and resource allocation
- Design of space-time codes for cooperative scenarios
- Randomized space-time codes for cooperative relaying
- Cooperative communications in multihop wireless networks

- Effects of partial and incomplete channel state information in cooperative systems
- Robust designs
- Practical issues in cooperation strategies for mobile ad hoc and sensor networks
- Synchronization in cooperative communications: effects and countermeasures
- Asynchronous designs

Authors should follow the EURASIP Journal on Wireless Communications and Networking manuscript format described at <http://www.hindawi.com/journals/wcn/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/> according to the following timetable:

Manuscript Due	November 1, 2008
First Round of Reviews	February 1, 2009
Publication Date	May 1, 2009

Guest Editors

Laura Cottatellucci, Department of Mobile Communications, Eurecom Institute, 06560 Sophia-Antipolis cedex, France; laura.cottatellucci@eurecom.fr

Xavier Mestre, Centre Tecnològic de Telecomunicacions de Catalunya (CTTC), 08860 Barcelona, Spain; xavier.mestre@cttc.cat

Erik G. Larsson, Division of Communication Systems, Department of Electrical Engineering, Linköping University, 581 83 Linköping, Sweden; erik.larsson@isy.liu.se

Alejandro Ribeiro, Department of Electrical and Computer Engineering, University of Minnesota, Minneapolis, MN 55455, USA; aribeiro@ece.umn.edu

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<http://www.hindawi.com>

Special Issue on Multiuser MIMO Transmission with Limited Feedback, Cooperation, and Coordination

Call for Papers

Wireless communication systems are already exploiting powerful multiple antenna technologies based on the principles of MIMO (multiple input multiple output) communication. By now, the principles of single user MIMO communication links are well understood. The next generation of systems, though, will use more advanced MIMO communication strategies that support multiuser MIMO. Multiple user communication with MIMO is more challenging than single user MIMO due to the additional degrees of freedom entailed by suppressing, cancelling, or avoiding interference. For example, limited signalling algorithms that are used to quantize channel state information at the receiver and send this information back to the transmitter(s) or relay(s) become more complex, since they need much higher resolution to achieve similar performance as their single-user counterparts. Consequently, advances in limited signaling communication are still required to make multiuser MIMO viable in next-generation systems.

This has motivated advanced research in the Network of Excellence Newcom⁺⁺, which supports this Special Issue.

Although using multiuser MIMO within individual cells has considerable potential, even larger performance gains can be achieved by using multi user MIMO across cooperative base stations. In the ideal case with perfect cooperation across all cells, the set of all base station antennas can be thought of as a single, distributed antenna array. Significant gains can also be achieved by some level of local coordination: for example, neighboring base stations might jointly choose beamforming directions in order to achieve interference alignment. In this general setting, there are fundamental challenges associated with transceiver design, limited channel information, and cooperative mechanisms.

Topics of interest include, but are not limited to:

- CSI feedback mechanisms for multiuser MIMO
- Feedback codebook design
- Rate distortion-based analysis of feedback systems
- Spatially or temporally adaptive feedback
- MIMO with statistical feedback
- Nonlinear/adaptive MIMO precoding
- Opportunistic scheduling and opportunistic feedback
- Inclusion of MIMO concepts in wireless standards

- Feedback in MIMO-OFDM and OFDMA schemes
- Cross-layer approaches to multiuser MIMO
- Multi-cell cooperative multiuser MIMO
- Channel training and feedback for multicell MIMO
- Interference alignment for multicell MIMO
- Adaptive space-time modulation and coding
- Cooperative space-time coding
- Coordinated joint source channel coding

Authors should follow the EURASIP Journal on Advances in Signal Processing manuscript format described at the journal site <http://www.hindawi.com/journals/asp/>. Prospective authors should submit an electronic copy of their complete manuscript through the Manuscript Tracking System at <http://mts.hindawi.com/>, according to the following timetable:

Manuscript Due	December 1, 2008
First Round of Reviews	March 1, 2009
Publication Date	June 1, 2009

Guest Editors

Markus Rupp, Vienna University of Technology, Gusshausstr. 25/389, 1040 Wien, Austria; mrupp@nt.tuwien.ac.at

Ana Pérez-Neira, Technical University of Catalonia, c/Jordi Girona 1-3, 08034 Barcelona, Spain; anуска@gps.tsc.upc.edu

Robert W. Heath Jr., The University of Texas at Austin, 1 University Sta C0803, Austin, TX 78712-0240, USA; rheath@ece.utexas.edu

Nihar Jindal, University of Minnesota, 200 Union St. SE, Minneapolis, MN 55455, USA; nihar@umn.edu

Christoph Mecklenbräuker, Vienna University of Technology, Gusshausstr. 25/389, 1040 Wien, Austria; cfm@nt.tuwien.ac.at

Call for Papers

IEEE Journal on Selected Areas in Communications (JSAC)

Simple Wireless Sensor Networking Solutions

Wireless sensor networks (WSNs) have witnessed a tremendous upsurge in recent years in both industry as well as academia. This is mainly attributed to the unprecedented opportunities they offer. However, WSNs also face significant design challenges, including their limited computing abilities and their dependence on finite battery energy. A major obstacle to the ubiquitous deployment of WSNs is the absence of reliable and easy-to-implement communication stacks. The main design criteria are thus to lower algorithmic complexity to facilitate low-power solutions that can be embedded into low-cost microprocessors, and to extend the lifetime of the network without jeopardizing reliable and efficient communications from sensor nodes to other nodes as well as to data sinks. Such stringent design requirements can be met by a plethora of approaches, e.g., using cross-layer design paradigms, distributed signal processing algorithms, energy-efficient medium access control, fault-tolerant routing protocols, self-organizing and self-healing sensor network mechanisms and reliable data aggregation algorithms, among others. Viable solutions will impact both commercial activities as well as standardization approaches, including IEEE 802.15.4, IETF ROLL, Wireless HART and WOSA. In light of the above, the main purpose of this special issue is twofold:

- to promote novel approaches in analyzing, designing and optimizing large-scale energy and complexity constrained WSNs, and
- to expose novel, readily deployable protocol solutions that are of low complexity and hence facilitate very cheap network deployment and maintenance, with the ultimate goal of obtaining a useful and practically viable wireless sensor networking solution.

Topics of Interest:

The topics relevant to this special issue include but are not limited to:

- performance bounds (link and network capacity, with and without imperfections, etc.)
- data centric approaches (data fusion, aggregation, source coding, signal processing, etc.)
- protocol centric approaches (novel PHY, MAC and networking paradigms, etc.)
- cross-layer and cross-functionality designs (joint source/channel coding, etc.)
- cooperative and distributed algorithms (cooperative PHY, distributed signal processing, etc.)
- key functionalities (security, localization, self-*, synch., abstraction, ease of programming, etc.)
- interdisciplinary approaches (principles borrowed from physics, etc.)

Papers must be tailored to the problems of WSNs and explicitly consider complexity and energy constraints. The editors maintain the right to reject papers they deem to be out of scope of this special issue. Only originally unpublished contributions and invited articles will be considered for the issue. The papers should be formatted according to the IEEE-JSAC guidelines (<http://www.jsac.ucsd.edu/Guidelines/info.html>). Authors should submit a PDF version of their complete manuscript via EDAS (<http://edas.info/newPaper.php?c=7029&>) according to the timetable below.

Important Dates:

Submission deadline:	1 May 2009
Author Notification:	1 November 2009
Final Manuscript:	15 February 2010
Publication:	3 rd Quarter 2010

Guest Editors:

Mischa Dohler	CTTC, Barcelona, Spain (mischa.dohler@cttc.es)
Kris Pister	Berkeley, USA (pister@eecs.berkeley.edu)
Wendi Heinzelman	University of Rochester, USA (wheinzel@ece.rochester.edu)
Mani Srivastava	UCLA, USA (mbs@ucla.edu)
Ivan Stojmenovic	University of Ottawa, Canada (stojmenovic@storm.ca)
Kay Römer	ETH Zurich, Switzerland (roemer@inf.ethz.ch)

International Journal of Navigation and Observation

Special Issue on Selected Papers from Workshop on Synergies in Communications and Localization (SyCoLo 2009)

Call for Papers

In conjunction with the IEEE International Conference on Communications (ICC) 2009 in Dresden, Germany, the International Workshop on Synergies in Communications and Localization (SyCoLo 2009) will be held.

The main objective of this workshop is to show how wireless communications and navigation/localization techniques can benefit from each other. With respect to these synergies the workshop aims at the following fundamental questions:

- How can navigation systems benefit from existing communications systems?
- How can communication systems benefit from positioning information of mobile terminals?

This workshop, whose proposal was jointly generated by the EU Research Projects WHERE and NEWCOM⁺⁺, aims at inspiring the development of new position-aware procedures to enhance the efficiency of communication networks, and of new positioning algorithms based both on (outdoor or indoor) wireless communications and on satellite navigation systems.

The SyCoLo 2009 is, therefore, well in agreement with the new IJNO journal aims at promoting and diffusing the aims of joint communications and navigation among universities, research institutions, and industries.

This proposed IJNO Special Issue focuses all the research themes related to the timing aspects of joint communications and navigation, and starts from the SyCoLo 2009 where the Guest Editors will attend the different sessions and directly invite the authors of the most promising papers to submit an extended version of their papers to the journal.

The proposed Guest Editors are also part of the Scientific Committees of the SyCoLo 2009, therefore, directly involved in the evaluation of submitted papers.

Topics of interest will include, but are not limited to:

- Hybrid positioning using both wireless communications and satellite navigation systems
- Resource management with positioning information
- Location-aware PHY/MAC algorithms/procedures

- Indoor positioning combined with short-range communications
- Signal processing techniques for (seamless) indoor/outdoor localization

Before submission authors should carefully read over the journal's Author Guidelines, which are located at <http://www.hindawi.com/journals/ijn/o/guidelines.html>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/> according to the following timetable:

Manuscript Due	August 1, 2009
First Round of Reviews	November 1, 2009
Publication Date	February 1, 2010

Lead Guest Editor

Ronald Raulefs, German Aerospace Center (DLR), Institute of Communications and Navigation, Oberpfaffenhofen, Wessling 82234, Germany; ronald.raulefs@dlr.de

Guest Editors

Simon Plass, Institute of Communications and Navigation, German Aerospace Center (DLR), 82234 Wessling, Germany; simon.plass@dlr.de

Marco Luise, Dipartimento di Ingegneria dell'Informazione, Università di Pisa, Via G. Caruso 16, 56126 Pisa, Italy; marco.luise@iet.unipi.it

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Call for Papers
IEEE Communication Society
IEEE Journal of Selected Areas in Communications

Cooperative Communications in MIMO Cellular Networks

Pushed by the demand for bandwidth-hungry multimedia and internet-related wireless services, communication engineers seek to maximally exploit the spectral resources in all available dimensions. Together with the increased density of base stations in cellular networks in the most populated areas, the aggressive reuse of frequencies planned in so-called fourth generation cellular networks (4G) results in a novel situation where interference (along with the classical fading problem) is no longer just an issue but rather emerges as the key limiting factor. As the many radio links sharing the resource in the network can no longer be treated as independent, the classical approach of individually optimizing communication over the point-to-point channels between a mobile and a base station, using say advanced codes, or single-link MIMO, must be revisited to offer a truly "multi-terminal" view of the network. At the core of this view, lies the notion of cooperation which can take place between base stations, or even between the terminals themselves.

Learning from lessons stemming from the adhoc wireless networking community, where cooperation heavily builds on the concept of relaying, cooperative communication now finds its way into the cellular network framework, notably as a way to deal with multicell interference using distributed MIMO concepts. Remarkably, this topic has managed to attract the attention of communications theorists worldwide and, simultaneously, to already be a subject of active discussions in standardization forums for 4G networks such as 3GPP-LTE (Long Term Evolution), LTE-Advanced and UMB (Ultra Mobile Broadband).

A powerful weapon against fading and interference, cooperative communication finds itself particularly well suited to the context and constraints of cellular communications because of pre-existing backhaul infrastructure linking the base stations together. Recent advances in relaying protocols and distributed "network-" or "multi-cell-" MIMO techniques promise substantial performance gains in terms of the range, reliability and throughput capacity of cellular networks. Nevertheless the application of such theoretical concepts into real-life systems still hinges on a number of roadblocks. Among the most important ones are the cost of signaling overhead required for device cooperation, the design of cooperation schemes with limited complexity, and exhibiting robustness to a lack of precise channel state information, the better understanding of the pros and cons of terminal versus base station cooperation, the better assessment of system-level gains and of the impact on future backhaul cellular design.

These topics, together with fundamental advances in the underlying theory of cellular MIMO-based cooperation form the core of this special issue. Original work will be sought dealing with the items listed below:

- ✓ Multi-cell MIMO transceiver techniques ("Network MIMO")
- ✓ Information-theoretic approaches (e.g. capacity bounds)
- ✓ Feedback design for multi-cell MIMO
- ✓ Game theoretic approaches for multi-cell MIMO cooperation
- ✓ Distributed optimization and precoding techniques
- ✓ Distributed resource allocation in multi-cell MIMO
- ✓ Coordinated interference mitigation
- ✓ System-level issues of cellular cooperation (complexity, latency, fairness, overhead)
- ✓ Distributed synchronization issues
- ✓ Gain/signaling cost trade-off analysis
- ✓ Channel models for multi-cell MIMO
- ✓ Backhaul design issues
- ✓ Experiments, prototypes and standardization issues

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Guest Editors:

David Gesbert
Stephen Hanly
Howard Huang
Shlomo Shamai
Wei Yu

EURECOM, Sophia-Antipolis, France (gesbert@eurecom.fr)
University of Melbourne, Australia (hanly@unimelb.edu.au)
Alcatel-Lucent Bell Labs, New Jersey, USA (hchuang@alcatel-lucent.com)
Technion, Haifa, Israel, (sshloomo@ee.technion.ac.il)
University of Toronto, Canada (weiyu@comm.utoronto.ca)