

NEWSLETTER

CUI – Graduate School

No.2, April 2013

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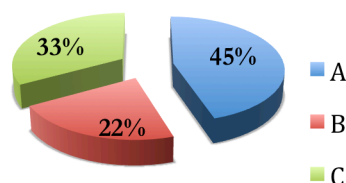
The summer term has started and it is once again time to give you some news on the Graduate School. We are delighted to note that more than half of the advertised positions are filled, the guest programme is fully operative, the course programme is complete, and the student representatives have been elected. Among others we briefly report here on the short visit by the delegation of the DFG, which was very successful, and inform you about some research highlights of CUI.

We wish you a lot of fun in reading this second edition of the newsletter. Do keep in mind that you are warmly welcome to provide us with contributions, especially highlights of your scientific research, give us feedback, and make suggestions for improvements.

Antonio Negretti and Peter Schmelcher

Facts about our centre

The number of members of our Centre for Ultrafast Imaging (CUI) is growing steadily. Currently, the graduate school (GS) of CUI has 24 PhD students and 12 postdocs including CUI-project financed and associate members. With respect to the distribution onto the research areas, we have 16 members currently working in Research Area A, 8 in Research Area B, and 12 in Research Area C. The percentage of female members recruited within the advertisement of last December is about 36%, while only 14% of the associated members are female PhD students or postdocs.



Distribution of the members of the CUI GS within the three research areas A, B, and C.

Course programme

A tailored course programme for the highly interdisciplinary research carried out in our excellent cluster is already available on the webpage of CUI (www.cui.uni-hamburg.de). The programme consists of a main CUI lecture, 9 lectures and 4 seminars, with a very good trade-off between theory and experiment. We note that four of the CUI lectures are attended both by scholars of the CUI and of the International Max Planck Research School for Ultrafast Imaging and Structural Dynamics.

Each term will have a main CUI

lecture, which should provide PhD students with tools, techniques, and methods for experiment and theory necessary for all research areas.

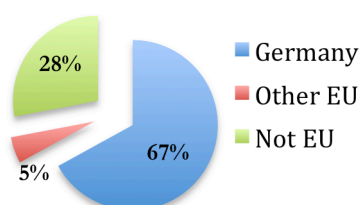
The main CUI lecture for the next summer term is experimental: *Methods in current X-ray science: From imaging to spectroscopy*, given by Prof. Chapman and Dr. Laarmann.

Guest programme

Up to now, 18 applications have been accepted and we have a very positive feedback concerning the exchange and collaboration with our scientific guests. Please, feel encouraged to make suggestions (also for distinguished guest lectureships) and to submit a short proposal to the graduate school coordinator. The application form can be downloaded from the webpage „Links“ of the CUI webpage.

Colloquia

Our excellence cluster has a collo-



Distribution of the countries of origin of the members of the GS of CUI.

quium with high profile speakers three times per term. The CUI colloquium will take place at CFEL in the seminar rooms I-III (Bld. 99, ground floor).

For the summer term the invited speakers are:

- Prof. L. DiMauro (Ohio)
April 24, 2013
Host: Prof. R. Santra
- Prof. K. Nelson (MIT)
May 27, 2013
Host: Prof. H. Chapman
- Prof. G. H. Campbell (LLNL)
June 6, 2013
Host: Prof. M. Drescher

Everybody who is interested in discussing with the speakers should contact the corresponding host.

DFG visit

On Thursday February 7, 2013, a delegation of the DFG visited our centre, and met at CFEL representatives of CUI and of the University of Hamburg. During the morning session there were presentations by the board of directors illustrating the mission and the operational status of the centre. After lunch the delegation had a lab tour and visited the experimental facilities to get first-hand information and immediate impressions.

The DFG visit was overall successful and the delegation was quite impressed by the quality of the research carried out at CUI and by the current status of the organization of CUI. Thus, congratulations to everybody.

The next DFG visit is planned for 2014.

Scientific discussion forum

We have established an electronic platform, which serves as a scientific forum, for the dissemination, discussion and communication of scientific issues within CUI. You are very welcome to intensively use this platform which is accessible via the CUI-web pages.

You are also warmly welcome to give us feedback, and make suggestions for improvements or further classifications in the forum.

Research highlights

We are happy and proud to highlight some important scientific achievements of CUI.

Recently, Christian Swoboda and Lars Bocklage within the groups of Dr. Guido Meier and Dr. Ralf Röhlsberger have achieved an important goal in the imaging of magnetic dynamics of ferromagnetic nanostructures via nuclear resonant scattering (NRS). Indeed, it has been shown that the dynamical magnetic field of a microwave excites a standing spin wave in a ferromagnetic thin film resulting in distinct changes in the NRS time spectra. In such a way, unique information about the spatial profile of the spin-wave in the film can be obtained.

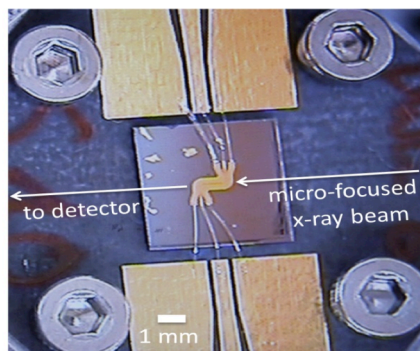


Fig. 1: A ferromagnetic thin film deposited on a 10 µm wide microwave stripline adopted for NRS measurements.

Important dates

In the time period November 13-15, 2013, our first CUI international workshop in connection with the award „Hamburger Preis für Theoretische Physik“ will take place. At this event PhD students as well as postdocs of CUI have the opportunity to present their scientific results. A programme including a list of invited speakers will be available in due time.

Student representatives

We are glad to communicate that our PhD students have voted for two representatives: Mr. Kai Bagchik (IAP) and Mr. Johannes

Schurer (ZOQ). They will represent the interests of the PhD students of CUI within the GS of CUI.

We congratulate them for their appointment and we are looking forward to an exciting collaboration.

Personalia

Prof. Andrea Cavalleri has been awarded, together with Prof. Dieter Jaksch (University of Oxford), Prof. Jean Marc Triscone (University of Geneva), and Prof. Antoine Georges (Ecole Polytechnique, College de France, University of Geneva), one of the first Synergy Grants of the European Research Council for the project *Frontiers in Quantum Materials Control*.

The graduate school of CUI congratulates Prof. Cavalleri on such an outstanding award and wishes him and his collaborators a successful project.



You are welcome to:

- send us suggestions of topics which you would like to be mentioned in the next Newsletter
- send us proposals for invitation of guests, etc.
- send us suggestions for highlights of Ph.D. work within CUI
- give us feedback in general

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