

# EURANDOM NEWSLETTER

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(the previous letter was from January 2004)

## Introduction

The implementation of the research re-alignment is almost finished. Ideas on topics are fixed, and two out of three programmes already launched their renewed websites:

<http://www.eurandom.tue.nl/Programmes/QPA.htm>

<http://www.eurandom.tue.nl/Programmes/RSS.htm>

The third one will be launched soon.

The Scientific Advisors had a meeting in June where they presented and discussed their future plans. EURANDOM welcomes five new Scientific Advisors:

-dr. Ivo Adan, TU/e and EURANDOM

-professor Richard Boucherie, UTwente and EURANDOM

-professor Sara van de Geer, University of Leiden and EURANDOM

-dr. Remco van der Hofstad, TU/e and EURANDOM

-professor Michel Mandjes, CWI and EURANDOM

From the summer of 2004 onwards, the research at EURANDOM will thus be organised along three parallel programmes, each with three themes:

## Random Spatial Structures (RSS):

- Critical Phenomena
- Disordered Systems
- Combinatorial Probability

## Queueing and Performance Analysis (QPA):

- Performance Analysis of Production Systems
- Performance Analysis of Communication Systems
- Queueing Theory

## Statistical Information and Modelling (SIM):

- Statistical Learning
- Biomedical and Bio-molecular Statistics
- Industrial Statistics.

**RSS** focuses on systems consisting of a large number of interacting random components, possibly with disorder. It aims to capture their large space-time behaviour through a combination of probabilistic, combinatorial and ergodic techniques, with special emphasis on critical phenomena and universality.

**QPA** is concerned with the performance analysis of stochastic networks, in particular, production and communication systems. Queueing theory and stochastic analysis provide the means to deal with control and optimisation issues.

**SIM** combines analytic and algebraic methods to address a variety of statistical questions originated from statistical classification, bootstrap, micro-arrays, gene expression, design of experiments, predictive maintenance and quantum statistics.

Each programme hosts six to eight postdocs and graduate students, is supervised by senior scientific advisors, and is guided by an international steering committee. Through the choice of themes, special attention is given to the interfaces with physics, biology, telecommunication and industry.

In addition to the above mentioned three research programmes, EURANDOM runs two research projects, one project on Reinsurance (RI) <http://www.eurandom.tue.nl/Programmes/RI.htm> and one project on Battery Management (BMM) – website to be launched soon.



## People

Dr. **Federico Camia** applied successfully for a Marie Curie Intra-European Fellowship; he started in February 2004. He visited IMPA (Rio de Janeiro) and PUC (Santiago) and was invited to Paris (Université Paris Sud), Florence and New York (Courant Institute) for several scientific visits.

Two former EURANDOM postdocs got an NWO VENI grant: Madalin Guta and Johan Segers.

## People who left since January 2004

**February:** Nicola Armstrong (Australia) accepted a postdoc position at the VU, Amsterdam; Fabio Toninelli (Italy) accepted a postdoc position at Zurich University.

**March:** Juan-Carlos Rodriguez (Argentina) started at Tilburg University as assistant professor.

**April:** Akira Sakai (Japan) changed from a EURANDOM postdoc appointment to an appointment within the framework of the VIDJ grant of Remco van der Hofstad but continues to work at EURANDOM.

**August:** Peter van der Wal (The Netherlands) is going to work for the ABN Amro bank in Amsterdam; Nidhi Hegde (Canada) is going to work for France Telecom, in Paris.

**September:** Christian Gromoll went to Stanford University, San Francisco to continue his NSF grant.



*For the various junior staff leaving EURANDOM, we organised "farewell" parties*

## New people since January 2004

SIM: Nadia Lalam, February 1

RSS: Gregory Maillard (NWO grant), February 1

RSS: Anne Fey (VU), March 1

## People who will arrive soon

September 1: Elena Tzenova (QPA)

September 14: Fabio Rigat (SIM)

October 1: Denis Denisov (QPA)

October 1: Reda Messikh (RSS)

October 15: Rongfeng Sun (RSS)

November 1: Leila Mohammadi (SIM)

November 1: Hwee Pink Tan (QPA)

## Visitors

### Long term visitors:

**QPA:** January-July 2004:

Douglas Down (Mc Master University, Ontario, Canada)

**RSS:** February-September 2004

Christoph Kuelske (WIAS Berlin, Germany)

### Short term visitors during the period January-July 2004:

#### RSS

Andre Toom (Federal University of Pernambuco, Brasil); G. Krupa (Catholic University Lublin, Poland); Ellen Baake (Ernst-Moritz-Arndt University, Greifswald, Germany); M. Baake (Universitaet Bielefeld, Germany); Juergen Gaertner (Technische Universitaet Berlin, Germany); Amine Asselah (Centre de Mathématiques et Informatique, Université de Provence, France); Jean-René Chazottes (CNRS, Ecole Polytechnique, France); Vlada Limic (University of British Columbia, Canada); Stu Whittington (University of Toronto, Canada); Karoly Simon (Budapest University, Hungary); George Kordzakhia (University of Chicago, USA); Alessandra Faggionato (WIAS Berlin, Germany).

#### QPA

Peter Taylor (University Melbourne, Australia); Victor Kulkarni (University of North Carolina, USA); Rong Wu (McMaster University, Ontario, Canada); Gideon Weiss (University of Haifa, Israel); David McDonald (University of Ottawa, Canada); David Perry (University of Haifa, Israel); Offer Kella (Hebrew University of Jerusalem, Israel).

#### SIM

Jyri Lember (University of Tartu, Estonia); Luigi Accardi (University of Roma II, Italy); C. Butucea (Université Pierre et Marie Curie, Jussieu, France); M. Keyl (Technische Universitaet Braunschweig, Germany); Tamas Rudas (TARKI, Budapest, Hungary); Jordan Stoyanov (University of New Castle, UK).

#### SERA

Hans-Jurg Albrechter (Graz University, Austria); Alex Lindner (Technische Universitaet Muenchen, Germany); Dominique Guégan (Ecole Normale Supérieure de Cachan, France)

### **Announced guests second half of 2004:**

August: E. Bagnan (SIM)

September: J. Gaertner, N. Gantert, I Goldscheid and E. Saada (RSS)

### **Workshops January-July 2004**

January 9 and 10

Alumni days

20 participants  
February 23-27  
Dutch-German Bilateral Research Group meeting  
20 participants

March 29-April 4  
YEP (Young European Probabilists) workshop  
Conformal invariance, Scaling limits and Percolation  
35 participants

May 3 and 4  
Workshop "Exotic Option Pricing under Advanced Lévy Models"  
120 participants

June 14-18  
MODA 7 (Model Oriented Design and Analysis)  
60 participants

#### EURANDOM also participated in:

April 16 and 17  
Dutch Mathematics congress

May 26 and 27  
Risk Analysis: Statistical and Probabilistic Methods -  
Colloquium on the occasion of professor Jozef L. Teugels being conferred the title of professor emeritus at Leuven University

June 21-25  
European Conference on Mathematics for Industry,  
Eindhoven

July 5 and 6  
Workshop "Quantitative Models for Production and  
Communication Networks"

#### Upcoming EURANDOM workshops:

October 7-9  
PASCAL workshop "Notions of Complexity:  
Information-Theoretic, Computational and  
Statistical Approaches"

#### Miscellaneous

8 out of 20 most downloaded publications from the  
Queueing System website in 2003 had a  
EURANDOM author or co-author.

The EURANDOM alumni site, EURANET, was  
renewed. Past activities, former postdocs with their

homepages as well as news is to be found on:  
[http://www.eurandom.tue.nl/EURANET/EURANET\\_mainpage.htm](http://www.eurandom.tue.nl/EURANET/EURANET_mainpage.htm)

Two EURANDOM lunches (for and by the staff of  
EURANDOM) were organised.



In June the Annual Excursion took place: after a  
biking tour (or ride by car for the more lazy ones)  
and coffee with cake, we visited the "Waalres  
Museum" and a chocolate factory. We had dinner  
at Herberg Kiekerjan in Eindhoven.



*For an overview of activities, people,  
EURANDOM reports etc. see*

<http://www.eurandom.tue.nl/workshops&seminars.htm>

*and/or*

<http://www.eurandom.tue.nl/people.html>

*and/or*

<http://www.eurandom.tue.nl/EURANDOMreports.htm>

*For an overview of Newsletters see:*

[http://www.eurandom.tue.nl/Newsletter/Newsletter\\_index.htm](http://www.eurandom.tue.nl/Newsletter/Newsletter_index.htm)

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