



■ Welcome note from CoLab@Portugal Mathematics Director

The CoLab year that ends officially in August was a busy year in Mathematics. This seems to be an appropriate time to make a balance and look a bit into our future plans. Last October we organized in Austin a workshop on Mathematical Analysis, Modeling, Optimization and Simulation. Out of this workshop several scientific exchanges were initiated, and, as a consequence, several Portuguese faculty spent the second semester in Austin developing research projects: Sílvia Barbeiro (UCoimbra), Isabel Figueiredo (UCoimbra), Eugénio Rocha (UAveiro) and Juha Videman (IST). This June we organized in the Mathematics Department of Instituto Superior Técnico in Lisbon, the first CoLab summer school on mathematics, the main topic was "Theoretical and Applied Hamiltonian Dynamics". This school was attended by Portuguese and UT Austin students, as well as some Portuguese faculty and students from abroad. The first Ph.D. student Rafayel Teymurazyan has already started his studies in Portugal, and the first Portuguese student Verónica Quitalo will be moving to Austin this August. A new Ph.D. student will be arriving to Portugal this September as well as two new post-docs: Olena Domanska and Gabriele Terrone.

We plan to organize a small workshop in Austin this fall, as well as a summer school in Portugal next summer. The PhD fellowships applications are have just opened and several prospective candidates have already shown interest in the program. As in the last year, we also expect to have some post-doctoral positions in Portugal.

We will continue our visiting faculty program, giving the opportunity to Portuguese faculty to spend a semester in Austin pursuing research objectives. Finally, a very important reminder: the Portuguese Science Foundation (FCT) has opened research project calls within the CoLab program, so please contact the program director for more information or keep looking at the FCT website for more information.

Diogo Gomes

MARK YOUR CALENDARS:

- **PORTUGAL-UT AUSTIN CFD 2008, FIRST WORKSHOP ON COMPUTATIONAL ENGINEERING: FLUID DYNAMICS (ADVANCED COMPUTING)** – Lisbon, Portugal – July 10th-11th – for information visit <http://cemat.ist.utl.pt/cfd/>.
- **DEADLINE FOR FUTURE PLACES FESTIVAL COMPETITION PRE-REGISTRATION AND SYNOPSIS SUBMISSION (DIGITAL MEDIA)** – Porto, Portugal - July 11th – for more information on how to apply visit <http://futureplaces.org>
- **SUMMER SUPERCOMPUTING INSTITUTE PRESENTED BY TACC (ADVANCED COMPUTING)** – at U.Coimbra, Coimbra, Portugal – July 14th – 18th – For more information visit <http://cfc.fis.uc.pt/events/tacc2008/>.
- **WORKSHOP "DIGITAL TRANSFORMATION OF ORGANIZATIONS" (DIGITAL MEDIA)** – U.Porto, Porto, Portugal – July 14th – 18th – For more information on how to apply, please visit <http://www.utaustinportugal.org/Events.aspx?event=169>.
- **DEADLINE FOR CREATIVE RESIDENCIES PROPOSAL SUBMISSIONS (DIGITAL MEDIA)** – Porto and Lisbon, Portugal - July 15th – for more information visit <http://www.utaustinportugal.org/Events.aspx?event=166>
- **UNDERGRADUATE SUMMER WORKSHOP (MATHEMATICS)** – Austin, Texas – July 21st – August 8th – visit <http://www.math.utexas.edu/rtg/course.html> for topics and reading lists
- **DEADLINE FOR PANEL PROPOSALS FOR FUTURE PLACES FESTIVAL (DIGITAL MEDIA)** – Porto, Portugal – July 31st - for more information visit <http://futureplaces.org>

COLAB News Center

UT Austin | Portugal Program opens calls for PhD and Post Doc Scholarships

The UT Austin | Portugal Program announces the opening of the PhD and Post-Doc Scholarships calls for 2008. The Calls opens on July 1st and the deadline for applications is September 8th. All interested candidates must submit their application electronically on the Science and Technology Foundation's (FCT) website (<https://concursos.fct.mctes.pt/bolsas/>).

The Program is accepting PhD and Post Doc applications in Digital Media and Mathematics and PhD applications in Advanced Computing. The Digital Media applicants can apply to the following subjects: Participative Media for Education and Culture; Interactive Media Design; Interactive Music and Sound Design; Online Journalism and Film and Television. The Mathematics applicants can apply to the following subjects: Algebra and Number Theory; Analysis and Numerical Analysis; Analysis and Partial Differential Equations; Geometry and Topology; Optimization; Stochastic Processes and Mathematical Finance and Dynamical Systems. The Advanced Computing applicants can submit their applications regarding the following description: Methodologies and techniques in HPC, distributed/grid computing and large scale data analysis & management, to solve computational engineering and science problems.

For more information about this call please go to the Program's official website (www.utaustinportugal.org) or send your questions to the directors of your interest area: dm.colab@fct.mctes.pt (for Digital Media), ac.colab@fct.mctes.pt (for Advanced Computing) and math.colab@fct.mctes.pt (for Mathematics).

UT Austin | Portugal Program opens call for R&D Projects

The UT Austin | Portugal Program announces the opening of the Research & Development Projects call for 2008. The Call opens on July 1st and the deadline for applications is September 15th. All interested candidates must submit their application electronically on the Science and Technology Foundation's (FCT) website (<http://concursos.fct.mctes.pt/projectos/>).

The Program is accepting Project Proposals in Digital Media, Mathematics and Advanced Computing. The Digital Media applicants can submit proposals in the following subjects: Participative Media for Education and Culture; Interactive Media Design; Interactive Music and Sound Design; Online Journalism and Film and Television. The Mathematics applicants can submit projects in: Algebra and Number Theory; Analysis and Numerical Analysis; Analysis and Partial Differential Equations; Geometry and Topology; Optimization; Stochastic Processes and Mathematical Finance and Dynamical Systems. The Advanced Computing applicants can submit their applications regarding the following description: Methodologies and techniques in HPC, distributed/grid computing and large scale data analysis & management, to solve computational engineering and science problems.

For more information about this call please go to the Program's official website (www.utaustinportugal.org) or send your questions to the directors of your interest area: dm.colab@fct.mctes.pt (for Digital Media), ac.colab@fct.mctes.pt (for Advanced Computing) and math.colab@fct.mctes.pt (for Mathematics).

SHORT COURSE ON "Digital Transformation of the organizations" with Gary Chapman – July 14th – July 19th – University of Porto, Porto



Gary Chapman

As part of the partnership between the University of Texas at Austin and Portugal, the University of Porto will offer a short course in July 2008 titled "Digital Transformation of Organizations." This course will be an introduction to the interesting changes brought to organizations by new information technologies, particularly the Internet and "Web 2.0."

This course is meant for non-technical students and professionals, meaning that it presumes no technical background or preparation. But technical professionals may find it useful as well, as an introduction to managerial, social and political trends that are influenced by information technologies.

The theme of the course will be that all organizations are being transformed from an older paradigm of bureaucracy to a new paradigm of the network and that organizations and economies that navigate this change will succeed and thrive.

SOUTH BY SOUTHWEST INTERACTIVE open for panel proposals

SXSW Interactive (<http://2008.sxsw.com/interactive/>), the digital media conference which takes over the city of Austin every spring, has opened its call for panels to be held March 13-17, 2009.

Attended by over 9000 "uber-geeks and digital creatives" each year, the conference covers the web, Internet, gaming and digital content industries from a broad variety of technical, social and business perspectives.

The panel selection process is simple but highly competitive, beginning with the submission of simple 50-word abstracts which are then voted on by SXSW attendees. In 2008 the conference received over 700 submissions, of which two from the UT Austin | Portugal CoLab were accepted. We hope to have an even greater presence this year.

If you have an idea for a SXSW Interactive panel or would like to discuss the process, please contact Prentiss Riddle (CoLab@Austin) at priddle@ic2.utexas.edu. Submissions will be accepted through July 11, 2008.

For more information feel free to visit the following official links: http://2008.sxsw.com/interactive/programming/panel_picker/ (Introduction to the submission process); http://2008.sxsw.com/interactive/panel_submission_tips/ (Tips on how to put together a good proposal) and http://2008.sxsw.com/interactive/programming/panel_picker/faq/ (FAQ).



FUTURE PLACES Competition Registration ends on July 11th



The deadline for Pre-registration and submission of the synopsis for the FUTURE PLACES festival is on July 11th. If you wish to participate in this international digital media festival, learn how to submit your work for the competition at the event's official website <http://futureplaces.org>.

The festival **FUTURE PLACES**, will take place in Porto, Portugal, from October 7th to October 19th. The festival will be comprised of workshops, which aim to bring together members of the digital arts communities, including people involved in research and production, to creatively explore several art forms included under the term "digital media". Also, part of the festival will be devoted to panels conducted by speakers with academic and industrial affiliations, and on topics with a business orientation.

Parallel to the festival, the Program is also accepting proposals for the Creative Residency Program. The objective of the "Creative Residency Program" is to support creativity and exploration in digital media, by engaging technology, the arts, and the humanities. The Program is looking for works with the potential to have an impact on local and global communities. This 3 month-long residency program seeks to connect international emerging artists and young talents from across the interdisciplinary spectrum of the digital media field to the strong technology resources at the University of Porto and the New University of Lisbon.

To know more about the Future Places Festival go to <http://www.utaustinportugal.org/Events.aspx?event=165> and about the Creative Residency Program click on <http://www.utaustinportugal.org/Events.aspx?event=166>. You can also visit the festival's official website – <http://futureplaces.org>.

Apply Now as Deadlines are coming up SOON!

Summer Supercomputing Institute brings TACC's Director to University of Coimbra

The UT Austin | Portugal Advanced Computing Program has elaborated a Summer Institute in Supercomputing in collaboration with the Texas Advanced Computing Center (TACC). This intensive workshop will bring TACC's Director, John Boisseau, to the University of Coimbra from July 14th to July 18th.

TACC has the largest computing system in the world for open science research, Ranger, a world-class supercomputing machine with 62,976 cores, a total memory of 123TBytes and peak performance of 504 Teraflops. John Boisseau will be sharing his experience related to the supercomputer Ranger and its capabilities for the development of computational science with the Portuguese scientists.



John Boisseau, Director of TACC

The summer institute will provide researchers with an intensive introduction to using HPC, grid computing and massive data storage technologies. While the focus will be on using TACC's computing resources, the skills will be general and thus applicable to a wide range of technologies in these areas.

Please check the workshop's official website <http://cfc.fis.uc.pt/events/tacc2008/>, for more information and the detailed schedule.

WHAT'S happening in Austin?

Idle Computers Offer Hope to Solve Cancer's Mysteries through Grid Computing Project

A biomedical engineering professor at The University of Texas at Austin is using a concept called "grid computing" to allow the average person to donate idle computer time in a global effort to fight cancer.

Muhammad Zaman, assistant professor in biomedical engineering, recently introduced Cellular Environment in Living Systems @Home or **CELS@Home** for short. The program already has more than 1,000 computer users worldwide contributing to the project. And the numbers keep growing.

The idea is based on what is called grid computing. Instead of using local computing resources, which are almost always limited, grid computing allows Internet users worldwide to contribute their idle computer time, creating a "virtual" supercomputer to solve a difficult problem. In this case, the grid computing program is calculating cellular interactions in different environments to help understand the principles of cell migration and cancer cell metastasis, or the spread of cancer from the original tumor to other parts of the body.

He says only a background program (or screensaver) needs to be downloaded—at no cost to the user—to contribute to the CELS@Home effort. A computational program then runs whenever the screensaver is activated, requiring no effort on the part of the user to run the program or report the computations.

Already, the program has yielded enough information in just two months for two journal articles. "What took months can be done now in days or weeks," Zaman says. "It's amazing."

For more information and to download the screensaver and join the effort, visit CELS@Home online.

-(Source: http://www.utexas.edu/news/2008/06/23/zaman_grid/)

THE UTEN CORNER | UTEN@Austin Team visits Portuguese Partners

From June 16 to June 20, 2008 a biotechnology and medical technology team from UTEN@Austin visited with entrepreneurs, universities, incubators, research parks and other institutions throughout Portugal. The UTEN@Austin team representing the UT-Austin IC2 Institute (www.ic2.org) consisted of: Dr. Mary Pat Moyer, Founder, CEO and Chief Science Officer, INCELL Corporation (www.incell.com); James Janowiak, President and Co-Founder, TEKSA Innovations; Renee White, President, Caduceus Technology Partners (www.caduceustechnology.com); and Cliff Zintgraff, President, Innology LLC (www.innology.com) and UTEN UT-Austin Program Manager.

Visits were made to Lisbon, Oeiras, Coimbra, Porto, Maia, and Guimarães. In particular, UTEN@Austin visited and was hosted by:

- Taguspark (<http://www.taguspark.pt>), Oeiras, Carlos Freire
- The itechpartner MedTech Conference, Coimbra
- UPIN (<http://upin.up.pt>), University of Porto, Maria Oliveira
- TecMinho (<http://www.tecminho.uminho.pt>), University of Minho, Marta Catarino and Ana Paula Amorim
- Instituto Superior Técnico (<http://www.ist.utl.pt>), Maria José Francisco



UTEN@Austin team visits with staff from Centro de Genética Clínica in Porto.



Carlos Freire of Taguspark, James Janowiak and Dr. Mary Pat Moyer talk strategy with a Portuguese entrepreneur.

During these visits, topics for discussion included venture coaching, regional industry cluster formation, S&T commercialization challenges, IP challenges, internship opportunities in the U.S., investment opportunities in the U.S., U.S. market analysis for Portuguese ventures, and participation in the UTEN pilot program for ongoing coaching, consulting, business development and entry into the U.S. market by Portuguese ventures. Approximately thirty new Portuguese ventures were identified who are candidates for UTEN pilot services. The overall goal of the UTEN program is to promote the development of new competencies, the internationalization of Portuguese Technology Transfer Offices, and the development and building of wealth in Portuguese ventures. For more information on UTEN's activities send email to Prof. José Manuel Mendonça, President of INESC Porto (www.inescporto.pt) and Director of UTEN@Portugal, at jmendonca@inescporto.pt. For information about the UTEN pilot program and services for Portuguese ventures, see www.techportugal.com

ONGOING Educational Opportunities

Digital Media:

ZON Award for Creativity in Multimedia – Deadline for entries: October 3rd

The competition is only open to Portuguese candidates and is divided in three areas: Applications, Content and Short films. The deadline for the submission of works is October 3rd at 6:00pm (Portuguese time). To know more about the award, go to <http://www.utaustinportugal.org/Events.aspx?event=160> or to <http://premio.zon.pt>.

Advanced Computing:

First UT Austin | Portugal Workshop on Computational Engineering: Fluid Dynamics - July 10th - 11th - At IST, Lisbon

This CoLab workshop will cover several topics related to some of the applications of advanced computational fluid dynamics, including biological, biomedical and clinical flows, environment and geophysical flows, noise generation, flow control and fluid-structure interactions, modeling and simulation of turbulent flows, transition and

chaos in fluid flows and turbulence in reacting and multiphase flows, among others.

For more information go to the workshop's official site <http://cemat.ist.utl.pt/cfd/>.

Summer Supercomputing Workshop presented by TACC – July 14th-18th – At U.Coimbra, Coimbra

The Supercomputing Summer Workshop (given by the Texas Advanced Computing Center – TACC) will happen in July in Coimbra. This workshop will focus on such topics as: the revision of the hardware and software of all TACC resources; the development parallel programs with OpenMP and MPI; the usage of data analysis software and systems; among others.

For more information please go to the workshop's official website <http://cfc.fis.uc.pt/events/tacc2008/>.

Useful links

www.utaustinportugal.org
www.ati.utexas.edu

www.fct.mctes.pt
www.austin-chamber.org

www.utexas.edu
<http://colab.ic2.utexas.edu/dm/>

www.ic2.org

We want to hear from you! Want to share your doubts and concerns about something you read? Want to see other topics featured in next month's newsletter? Want to contribute with articles or art? Please send all your feedback to sofia.santos@fct.mctes.pt.

UT Austin | Portugal

INTERNATIONAL COLLABORATORY FOR EMERGING TECHNOLOGIES, CoLAB

THE UNIVERSITY OF
TEXAS
AT AUSTIN

FCT Fundação para a Ciência e a Tecnologia
MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E ENSINO SUPERIOR