

# COLABSQUARE

UT Austin | Portugal INTERNATIONAL COLLABORATORY FOR EMERGING TECHNOLOGIES, CoLab



## WELCOME letter from CoLab@Portugal Advanced Computing Director

One of the key areas in CoLab is Advanced Computing (AC). It started as Grid Computing, and then it broadened to a wider area, which encompasses the key research interests of the Institute for Computational Engineering and Sciences (ICES) at Austin. These include the computer sciences fields concerned with the high-end applications in science & technology, plus the deployment of sustainable advanced computing infrastructures. And since the Texas Advanced Computing Centre (TACC) has been running on TeraGrid, since early 2008, the most powerful computing system in the world for open scientific research (the Ranger cluster, with almost 63,000 cores), TACC is very well positioned to help Portugal to lead a successful path towards a grid infrastructure with a National Advanced Computing Centre. The Iberian Grid is under way (more details will be presented at the 2nd IBERGRID conference now on May 12-14, in Porto), and TACC's expertise in the planning and deployment of such infrastructures will be a valuable resource for the Portuguese community.

The acquisition and deployment of AC infrastructures is not the goal of this program, even if required to prevent more brain drains, since these are still faint in Portugal. The main challenge for the AC program is on coherent research-based actions with a societal impact. These require awareness of the research community, both at academia and in companies, and actions that do address their needs. The strategic actions that were defined for AC relied mainly on interdisciplinary research education with industrial partners and/or private institutions, namely to promote and to fund cooperative research projects and scholarships. Workshops and Conferences in Portugal with researchers from UT Austin also contribute to better graduate training, and these are already planned and scheduled months ahead. And to reach a broader audience, the board of directors has been active in public presentations to promote the program in several Universities, and all major Portuguese companies have also been contacted.

Open calls for joint research projects and scholarships will be open soon (at FCT website). The seeds were planted and we need to water them; with the 3rd year starting in September we hope some promising results arriving soon.

*Alberto Proença*

### MARK YOUR CALENDARS:

- FUTURESONIC 2008 (DIGITAL MEDIA) – Manchester, UK – May 1st-4th – visit: <http://www.futuresonic.com>.
- DEADLINE FOR SUMMER INSTITUTE 2008 IN DIGITAL MEDIA'S WORKSHOP APPLICATIONS (DIGITAL MEDIA) – Lisbon, Portugal – May 5th (23:00pm Portuguese Time) – visit: <http://www.utaustinportugal.org/Events.aspx?event=167> (for workshop descriptions and requirements).
- OFFF LISBON (DIGITAL MEDIA) – Lx Factory, Lisbon, Portugal – May 8th- 10th – visit: <http://www.offf.ws/>.
- 2ND IBERIAN GRID INFRASTRUCTURE CONFERENCE (ADVANCED COMPUTING) – University of Porto, Porto, Portugal – May 12th – 14th – visit: <http://www.ibergrid.eu/2008/>.
- DEADLINE FOR ABSTRACT SUBMISSION TO THE PORTUGAL-UT AUSTIN CFD 2008, FIRST WORKSHOP ON COMPUTATIONAL ENGINEERING: FLUID DYNAMICS (ADVANCED COMPUTING) – Lisbon, Portugal – May 30th – visit: <http://cemat.ist.utl.pt/cfd/>.

# COLAB News Center

## Sizzling Summer on UT Austin | Portugal Academic Programs

If you're interested in Digital Media, Advanced Computing or Mathematics... 'We have a Summer Program for you! The UT Austin | Portugal Program is staying very active this summer by creating opportunities for undergraduate and graduate students, as well as professionals in all academic areas involved in this project. There will be workshops, conferences, summer institutes and schools throughout the months of June and July, so if you are among those interested in Digital Media (in different fields), Advanced Computing or Mathematics, check out the Programs below.

### SUMMER INSTITUTE 2008 IN DIGITAL MEDIA – May 26th to June 27th – Lisbon, Portugal

The UT Austin | Portugal Program will bring some of the best known University of Texas at Austin scholars in the areas of film, design, music and journalism to Lisbon for the first Summer Institute in Digital Media being organized in Portugal. The Summer Institute 2008 will take place at FCSH/UNL, FCT/UNL and Cinemateca Portuguesa.

The institute will be comprised of 6 intensive workshops (all free of charge): Collaborative Scriptwriting with Richard Lewis, Online Journalism with Rosental Alves, Digital Documentary with Karen Kocher, Digital Hollywood with Bryan Sebok, Creating Music and Audio for Film, Video and Games with Bruce Pennycook and Photorealistic 3D Graphics Rendering & Simulation with Arie Stavchansky. These workshops can only be attended by application and there are a limited number of places for each one.

There will also be several talks in a series of subjects such as Innovation and Technology in Film (May 30th), Digital Film (June 6th), Youth and New Media (June 17th) and Remapping the Digital Divide (June 20th). These talks are open to the general public and there will be no need to apply for them.

The Program, in collaboration with Cinemateca Portuguesa, will also be showing a Film series under the subject Innovation and Technology in Film and presented by Tom Schatz. It will last from May 29th to June 6th. If you wish to apply to the workshops or know more about these and other activities of the Summer Institute 2008, please log on to <http://www.utaustinportugal.org/Events.aspx?event=167>. Apply soon as applications close on May 5th!



### MATHEMATICS SUMMER SCHOOL (for Graduate Students) – June 16th to June 20th – Lisbon, Portugal

The CoLab Mathematics Summer School is a yearly event that aims at bringing together Ph.D. students and junior faculty with well known experts in the several areas of mathematics. The event will take place at Instituto Superior Técnico (Civil Engineering Building - conference center), the largest science and engineering school in Portugal.

For this first summer school, the CoLab Mathematics Board has chosen the topic "Dynamical Systems" with particular emphasis on pure and applied Hamiltonian dynamics. The Summer school will have a full house as dozens of students have registered to attend.

The faculty for this school, with names such as B. Engquist, A. Fathi, K. Khanin and R. de la Llave, is composed by internationally known experts and the Program believes that their courses will be extremely useful for Ph.D. students, post-docs and faculty that would like to broaden their knowledge in this very active area of research.

The applications for the Summer School 2008 are now closed but keep checking the Program's official website for the call of the Summer School 2009.

### SUMMER WORKSHOP IN MATHEMATICS (for Undergraduate Students) – July 21st to August 8th – Austin, Texas (US)

The Mathematics Department at the University of Texas at Austin will offer a three-week RTG summer course on multiscale modeling and analysis from July 21, 2008 to Aug 8, 2008.

The course will provide a comprehensive coverage of the modern research of multiscale systems. The prerequisites of the course are advanced calculus and linear algebra. Some familiarity with numerical analysis and computer programming will be helpful.

Under the UT Austin | Portugal Program, CoLab, Portuguese undergraduate students ("1º e 2º ciclo") were able to apply for this course for the first time. Travel, on-campus accommodation and meal allowances will be provided by the Program.

The applications for this workshop are now closed but keep checking the Program's official website for future educational opportunities for undergraduate students.

### Portugal|UT Austin CFD 2008 – First Workshop on Computational Engineering: Fluid Dynamics – July 10th to July 11th – Lisbon, Portugal

The Advanced Computing Program is organizing the First workshop on Computational Engineering, under the theme of Fluid Dynamics. This workshop will take place on July 10th and 11th at Instituto Superior Técnico, in Lisbon, Portugal.

The main goal of this CoLab workshop is to bring together PhD students and young researchers from the Portuguese institutions (universities or research centers), with internationally distinguished experts from UT Austin in advanced topics of computational fluid dynamics and their relevant applications.

The workshop will cover a variety of topics such as biological, biomedical and clinical flows, image processing and visualization of biomedical phenomena, non-Newtonian flows, environment and geophysical flows, noise generation, flow control and fluid-structure interactions, modeling and simulation of turbulent flows, among others.

The submission of abstracts is open until May 30th at <http://cemat.ist.utl.pt/cfd/registration.php>, and the price of the workshop is 160 EUR for regular participants and 80 EUR for PhD and MSc students. This fee covers the participation in the workshop, the book of abstracts, the refreshments, lunches and the workshop dinner.

## ■ Short Course on "Digital Transformation of the Organizations" with Gary Chapman - July 14th - July 19th - University of Porto, Porto



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.

The course will consist of six three-hour sessions, from July 14 through July 19, 2008. In addition to covering a list of topics, students will also be engaged with developing a collaborative Web site that will demonstrate the capabilities of new online tools.

Gary Chapman

To know more about the topics and reading list for this workshop please visit: [www.utaustinportugal.org](http://www.utaustinportugal.org). To apply for this workshop (there is a limited number of places) send an email to [palves@inescporto.pt](mailto:palves@inescporto.pt) with your name, occupation, short CV and a motivation letter (In English and max. 150 words) until June 30th.

## ■ UT Austin | Portugal Program launches Award for Creativity in Multimedia

The UT Austin | Portugal Program (CoLab), the Foundation for Science and Technology (FCT) and ZON Multimedia have launched, on an official ceremony that happened at the Reitoria of Universidade do Porto, on April 3rd, the Award for Creativity in Multimedia.

This award aims to stimulate the research in digital media, by promoting the research work in a multidisciplinary environment and the scientific international collaboration in this area, in particular regarding CoLab.

The competition is only open to Portuguese candidates and is divided in three areas: Applications, Content and Short films. The winning project in each area will win 50.000 EUR and can win an extra 50.000 EUR in the Big Prize (to be chosen among the three winners) and can also benefit from an FCT research scholarship, which are divided in different categories, according to the winner's characteristics.

The deadline for the submission of works is October 3rd at 6:00pm (Portuguese time). To know more about the award, go to <http://utaustinportugal.org/Events.aspx?event=160> or to <http://premio.zon.pt>



## ■ STUART KELBAN teaches a workshop on "Screenwriting for New (and Old) Media" to the Multimedia Masters Students at UPorto

Stuart Kelban (UTAustin) will be in Porto from June 16th to June 27th to give an intense workshop to the students of the Multimedia Masters at UPorto.

Kelban will start from the standpoint that "whether writing a feature-length screenplay or a 3-minute webisode, a screenwriter's sole obligation is to tell a good story". In this intensive seminar, students will explore the dramatic principles which inform all forms of narrative writing for visual media, both old and new.

According to Stuart Kelban, the students in this workshop will discuss and evaluate each other's work on a daily basis, developing their critical skills as screenwriters and evaluators of film. By the end of the course, students will leave with a greater appreciation and understanding of writing for both traditional and new media.

## ■ FUTURE PLACES and Creative Residency Program open applications



After the success of the Digital Media Festival in November 2007, at the Reitoria of the University of Porto, the Digital Media team of the UT Austin | Portugal Program is launching a new edition of the festival. This year the festival, entitled FUTURE PLACES, will take place at the new Edifício Douro (Fundação da Juventude), in Porto, Portugal, from October 7th to October 19th.

The FUTURE PLACES Festival will be a celebration of digital media work currently being developed in Portugal and around the world. The festival will feature web, digital video, and installation art work, as well as electronic music, 3D graphics, cell phone art and productions related to locative media, games and hybrid realities.

The festival will begin with workshops during October 7 and 8, 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".

Part of the festival will be devoted to panels conducted by speakers with academic and industrial affiliations, and on topics with a business orientation, such as social networking in the corporate environment, bringing the mobile web into the academic environment, alternate reality games, blogging as a profession, and so forth.

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>.

### Correction:

On April's article "*Mathematics and ICES faculty at CoLab@Austin help Portuguese Post Docs develop their research*" it was implied that Isabel Figueiredo was doing her Post-Doc Research at UT Austin and that is not the case. Isabel Figueiredo is presently collaborating with several UT Austin partners such as Omar Ghattas, Chandrajit Bajaj, Bjorn Engquist, Georg Stadler and Richard Tsai (all from ICES) on the colorectal cancer and the investigation to look for proof that the Aberrant Crypt Foci (ACF) may be determinant in the adenoma-carcinoma sequence.

## ■ WHAT'S happening in Austin?

The first Portuguese MSSTC students graduate the Program in May

Rui Oliveira and Pedro Pereira, from WIT Software ([www.wit-software.com](http://www.wit-software.com)), will graduate this May 17th from the UT Austin's Masters in Science and Technology Commercialization, a degree that is part of the UT Austin | Portugal Program.

The two students attended the classes online, while keeping their full-time jobs at WIT Software and had to face the adversity of being 6-hours ahead of Austin and the late night conference calls with their teams in the US.

But according to Rui Oliveira, “*Attending the MSSTC opened new horizons for us. Not only we got the contact with new education system, but we also had the opportunity to stay in constant contact with very different cultures by interacting with students from the US, Taiwan, Japan, China, etc.*”

Rui and Pedro will now apply their experience with MSSTC to their jobs at WIT Software, a software company that creates innovative applications and services for telecommunication and media companies.



The new Portuguese graduates of the MSSTC Program

## ■ ONGOING Educational Opportunities

### Digital Media:

The Summer Institute 2008 in Digital Media – May 26th – June 27th, Lisbon

If you wish to apply to one of the six workshops, please send an email to [utaustinportugal@fct.mctes.pt](mailto:utaustinportugal@fct.mctes.pt) with your name, occupation, short CV and a motivation letter (in English or Portuguese, max. 200 words) and write the name of the workshop/s you are applying to on the email's subject.

FUTURE PLACES 2008 – October 9th-19th, Porto

The call for entries is now open and includes a call for synopses for a new ‘creative residency program’ for which academic affiliation is not required. Make sure you check ([www.utaustinportugal.org](http://www.utaustinportugal.org)) for information on how to apply for both calls.

Short Course on “Digital Transformation of the organizations” with Gary Chapman – July 14th –July 19th – University of Porto, Porto

To know about the topics and reading list for this workshop please visit [www.utaustinportugal.org](http://www.utaustinportugal.org). To apply for this workshop (there is a limited number of places) send an email to [palves@inescporto.pt](mailto:palves@inescporto.pt) with your name, occupation, short CV and a motivation letter (In English and max. 150 words) until June 30th.

### 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 registration go the workshop's official site: <http://cemat.ist.utl.pt/cfd/>.

TACC Summer Workshop in Coimbra

The CoLab will soon launch the call for the Summer Workshop in Advanced Computing.

The Advanced Computing Summer Workshop (given by the Texas Advanced Computing Center – TACC) will happen in the end of June in Coimbra.

Please keep checking the UT Austin | Portugal's official website ([www.utaustinportugal.org](http://www.utaustinportugal.org)) for updates this workshop.

### Useful links

[www.utaustinportugal.org](http://www.utaustinportugal.org)

[www.ftc.mctes.pt](http://www.ftc.mctes.pt)

[www.utexas.edu](http://www.utexas.edu)

[www.ic2.org](http://www.ic2.org)

[www.ati.utexas.edu](http://www.ati.utexas.edu)

[www.austin-chamber.org](http://www.austin-chamber.org)

[http://colab.ic2.utexas.edu/dm/](http://http://colab.ic2.utexas.edu/dm/)

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