FICHE NAVETTE: DOCTORANTS IDEX

SECTOR **:** Higher Education Institution

LOCATION: France, Grenoble

RESEARCH FIELD: Theatre and computer science

RESEARCHER PROFILE:
  □ *First stage researcher,*

INSTITUTION: Univ. Grenoble Alpes, University of Innovation

One of the major research-intensive French universities, Univ. Grenoble Alpes**[1] enjoys an international reputation in many scientific fields, as confirmed by international rankings. It benefits from the implementation of major European instruments (ESRF, ILL, EMBL, IRAM, EMFL*[2]). The dynamic ecosystem, grounded on a close interaction between research, education and companies, has earned Grenoble to be ranked as the 5th most innovative city in the world. Surrounded by mountains, the campus benefits from a natural environment and a high quality of life and work environment. With 7000 foreign students and the annual visit of more than 8000 researchers from all over the world, Univ. Grenoble Alps is an internationally engaged university.

A personalized Welcome Center for international students, PhDs and researchers facilitates your arrival and installation.

In 2016, Univ. Grenoble Alpes was labeled «Initiative of Excellence ". This label aims at the emergence of around ten French world class research universities. By joining Univ. Grenoble Alpes, you have the opportunity to conduct world-class research, and to contribute to the social and economic challenges of the 21st century ("sustainable planet and society", "health, well-being and technology", "understanding and supporting innovation: culture, technology, organizations" "Digital technology").

* ESRF (European Synchrotron Radiation Facility), ILL (Institut Laue-Langevin), IRAM (International Institute for Radio Astronomy), EMBL (European Molecular Biology Laboratory), EMFL (European Magnetic Field Laboratory)

Key figures:

- \+ 50,000 students including 7,000 international students
- 3,700 PhD students, 45% international
- 5,500 faculty members
- 180 different nationalities
- 1st city in France where it feels good to study and 5th city where it feels good to work
- ISSO: International Students & Scholars Office affiliated to EURAXESS

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[1] Univ. Grenoble Alpes

[2]

The **PERFORMANCE LABORATORY** cross-fertilises UGA's performing arts, geography-urban studies and computer science communities to produce innovative *performance as research.* This new interdisciplinary community of 41 academics will allow the development of cutting edge art research, digital documentation, performance literacy tools and innovative forms of material and immaterial heritage. This will push the very boundaries of the scientific disciplines themselves, both methodologically and epistemologically, and in turn, create a new pluridisciplinary ecosystem at CUGA.

SUBJECT DESCRIPTION:

Context : This PhD thesis is proposed as part of an ongoing collaboration between computer scientists and performings arts researchers at Univ. Grenoble Alpes and INRIA to use video in teaching and researching the performing arts. In a previous project, the IMAGINE team at LJK and INRIA developed methods for automatic generation of cinematic rushes from ultra high definition video recordings of stage performances [1]. Here, we would like to propose techniques for making documentary movies from the generated rushes, based on an analysis of the script of the performance and a formalization of the rules of film editing. Ideally, the proposed techniques should be completely non-invasive (not requiring sensors on actors or on stage) and intuitive enough to be used by performing arts students, professors and researchers, without any expertise in video production.

Description: The goal of the PhD thesis will be to propose novel interaction techniques to students, professors and researchers in the performing arts for making movies from stage performances recorded on stage. On the one hand, we will propose novel algorithms for editing cinematographic rushes together into movie clips automatically, based on computational models of film editing « idioms » and machine analysis of the actors speech and motion. On the other hand, we will propose novel user interfaces for easily choosing between available idioms as in [2] and creating new idioms for the specific purpose of teaching and researching mise en scene and acting techniques.

During his/her thesis, the PhD student will create an extensive database of stage performance recordings, as part of a collaboration with the performing arts department at Univ. Grenoble Alpes and associated theatre companies. The raw recordings and the generated movies will be used as supporting material for teaching mise- en-scène and acting techniques, and for researching multiple aspects of expressive human motion, verbal and non-verbal communication, and dramaturgic techniques, as part of the new cross-disciplinary research project « Performance Lab ».

References:

[1] Vineet Gandhi, Rémi Ronfard, Michael Gleicher. Multi-Clip Video Editing from a Single Viewpoint. CVMP 2014 - European Conference on Visual Media Production, Nov 2014.

[2] Mackenzie Leake, Abe Davis, Anh Truong, and Maneesh Agrawala. Computational video editing for dialogue-driven scenes. ACM Trans. Graph. 36, 4, July 2017.

ELIGIBILITY CRITERIA
Applicants:
- must hold a Master's degree (or be about to earn one) or have a university degree equivalent to a European Master's (5-year duration),

Applicants will have to send an application letter in English and attach:
- Their last diploma
- Their CV
- A short presentation of their scientific project (2 to 3 pages max)
- Letters of recommendation are welcome.

Address to send their application: remi.ronfard@inria.fr, benjamin.lecouteux@univ-grenoble-alpes.fr

SELECTION PROCESS
Application deadline: May 15th **2018** at 17:00 (CET)
Applications will be evaluated through a three-step process:

1. Eligibility check of applications in May 17th 2018
2. 1st round of selection: the applications will be evaluated by a Review Board and results will be May 25th.
3. 2nd round of selection: shortlisted candidates will be invited for an interview session in Grenoble on May 31st 2018 (if necessary).

4. Final decision will be given June 30.

TYPE of CONTRACT: temporary-3 years of doctoral contract
JOB STATUS: Full time
HOURS PER WEEK: 35
OFFER STARTING DATE: October 1 2018
APPLICATION DEADLINE: May 15th 2018
Salary: between 1768.55 € and 2100 € (gross) per month (depending on complementary activity or not)