



Thematic School on Modelling and visualising spatial dynamics: Reasoning on long time spans and uncertainty

Fréjus (France / Var) 8-12 October 2012

CONTEXT AND OBJECTIVES

Analysing and understanding spatial dynamics raises, in the context of historic sciences, a number of open issues, both methodological and technological. The very nature of inputs handled in historical investigations – *imperfect* raw data, pieces of information, pieces of knowledge - often undermines efforts to produce reasoning, or to implement instruments for analysis.

These issues are naturally primarily raised in disciplines in and around history, where analysts try to depict spatial dynamics that cover long time spans - may they concern anthropic changes or a natural phenomenon. But they in parallel question the biases, formalisms and solutions offered today by informatics and information sciences.

Contemporary analyses of spatial dynamics, at scales ranging from the edifice to the territory, tend to rely massively on technological solutions and computer science formalisms that are more and more at the heart of our scientific practices, but that in parallel sometimes also appear as more and more divergent. In addition, scientific communities that are brought to carry out such analyses often do with divergent objectives, methods, and scientific cultures.

Accordingly, a risk exists to see recent breakthroughs (in terms of concepts, methods, tools) act as yet another factor of dispersal, weakening the scientists' capacity to foster a better global understanding of how to handle spatial dynamics, in the context of historic sciences.

The “Modelling and visualising spatial dynamics” thematic school offers scientists from various communities an opportunity to discuss theoretical and practical approaches that remain today often distributed across independent communities (by scale, by tool, by original discipline, *etc.*), thereby often invisible to one another. The event's intent is accordingly to try and temporarily bridge the gap between historic sciences, geosciences, computer science and information sciences. It should allow researchers, teachers cum researchers, PhD students and practitioners with the above background to better circumscribe some of the conceptual / technological solutions available today when handling spatial dynamics that cover long time spans, in the context of irreducible uncertainty.

WHAT IS A THEMATIC SCHOOL ?

A “thematic school” is originally a continuing education seminar-like event funded by the French National Centre for Scientific Research for its staff. Yet it is open more widely to all scholars researchers interested by the theme, its aim being to foster close scientific exchanges and transfers of knowledge and know-how. Accordingly, the programme includes theoretical interventions (invited speakers from various disciplines, and various countries) as well as demos, tutorials and sessions in workgroups.

Thematic schools differ from traditional workshops by the fact that invited speeches, tutorials and practical classes are closely intermingled all along the event, and by the fact that participants are hosted on the event's site in a so-called “residential” format.

EVENT FOCUS

Discussions will focus on two fundamental issues when studying spatio-historical dynamics, *i.e.* spatial dynamics that are analysed under the constraints of historical sciences:

- Understanding and modelling the time variable: how can time-related doubts and uncertainty be clarified and instrumented?
- Bridging the gap between spatial dynamics and Information Visualisation: how can insight into dynamics of change be gained, in the specific context of historical sciences, using concepts & means from the Information visualisation & visual analytics communities?

The event's theme and programme should allow participants to better identify and measure similarities and differences in the way events, processes, and transformations are handled across various disciplines, with various real cases, datasets and research goals. Theoretical approaches, records of experiences, practical classes should shed an interdisciplinary light on how dynamics of change on long time spans, with and multiple heterogeneous uncertainty, can be dealt with.

Participants will be invited to present their own research & interests in a short introduction session, and optionally may propose a paper for publication on the event's associated online journal. Invited speeches will also be available as papers or presentations in order to foster post-event, mid-term reuses of its inputs and outcomes.

Didactic material and outcomes of the interactive tutorials / practical classes will be published for further use on the event's web site and will contribute to a Wiki dedicated to its research issues.