

STeamer – Spatial and Temporal Information Systems

<http://steamer.imag.fr/>

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Mosig research day AIW

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Computer Science and Geomatics

- ▶ **Multidisciplinary:** Computer Science \cap Geography

- ▶ **Inspired by applications:**

Urban Planning, Risk Management, Environment, GeoLinguistics, Digital Humanities,...



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Context: GeoWeb

Mobile devices and networks yield...

- ▶ ...More and more georeferenced information
 - ▶ multidimensional (spatial, temporal, semantics,...)
 - ▶ heterogeneous
- ▶ ...New ways of producing/using/sharing/structuring/processing/visualizing geographical information:
 - ▶ Geovisualization (dynamic cartography, webGIS, webmapping, geovis...)
 - ▶ Spatial Data Infrastructures
 - ▶ New practices: Volunteered Geographical Information, Crowdsourcing...



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7 Permanent members (3 Prof., 4 Assoc. Prof.), \approx 10 Ph.D. Students



1. Spatial and Temporal Semantic Web

- ▶ Modelling and reasoning on *Time & Space*
- ▶ Making systems inter-operate (Open Data, Linked OD, Geographic Web Services,...)

2. Geovisualization and Spatio-Temporal Analysis

- ▶ Developing visualization, exploration and analysis interfaces for spatio-temporal information
- ▶ Visualizing imperfect, heterogenous or dynamic data or phenomena

3. Mobility

- ▶ Making models of mobile “objects”
- ▶ Exploiting spatio-temporal context *in situ*



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Some of our current research projects...

▶ ANR-Eclats

Automatic Extraction of Geolinguistic Atlas Content and Spatial Analysis

▶ H2020-MICA: Mineral Intelligence Capacity Analysis

building a reference ontology and reasoning tools for mining

▶ Geovisualization and Spatial analysis of geotweets

▶ Towards a geovisualisation interface for collecting localized data (in space and time) about life trajectories