

## Proposal of Scientific Project for validating Benke

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**Title :**                **Developping the C++ ghostt library**

**Supervisor :** Xavier DESQUENES (PhD, Ass. Professor), [xavier.desquesnes@univ-orleans.fr](mailto:xavier.desquesnes@univ-orleans.fr)

**Laboratory :** PRISME – Computer Vision & Image Processing team

**Internship period :** From January 15th till May 2016

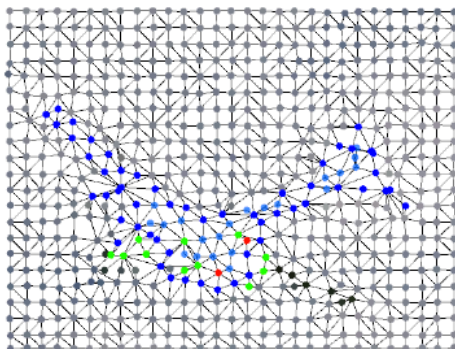
### Scientific work :

The objective of the internship is to contribute to the development of the **ghostt** C++ library dedicated to experimental algorithms for clustering on weighted graphs. The ghostt library is designed to ease the development of efficient algorithms on weighted graphs. The library is divided in two main parts. The first one concerns the development of algorithms and provides smart templated tools and efficient data structures to handle many kinds of data (graphs, images, meshes, datasets, etc). The second part provides tools to ease the work of researcher during the experimentation step, including algorithm controllers and OpenGL based visualizers.

The two main tasks of the internship will be:

- Qt integration for the visualizer.
- Development of several tools for algorithms introspection and live control (during execution).

**Required skills:** good knowledge of C++ programming.



Active contours on weighted graphs, using the ghostt library and its visualization tools.

