

# Mobyle@SERPICO: Image processing methods for the temporal analysis of moving particles on a Mobyle Web Portal

Thierry Pécot and Charles Kervrann

SERPICO group; Inria Rennes - Bretagne Atlantique, F-35042 Rennes



**FRANCE-BIOIMAGING**

# Outline

Motivation

Solution

Algorithms

Mobyle@SERPICO

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# Motivation

- **Web demonstration platform** for algorithms developed in Serpico group
- Solution **accessible** to anybody
- **Easy to use**, from the computer scientist to the biologist

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## Software

- Web portals for **bioinformatics** : Mobylye, Galaxy
- Simple interface for both **image analysts and biologists**
- **Easy** solution to **deploy** for developers in Serpico group

# Hardware in the cloud

- **8 cores 2.2GHz**
- **64 GB** RAM
- **500 MB** for each **user**
- Data is saved for **3 months**
- Data **backup**

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<b>Denoising</b>	ND-Safir [Boulanger <i>et al.</i> ]
<b>Registration</b>	Motion2D [Bouthemy <i>et al.</i> ] Backwarping [Bouthemy <i>et al.</i> ]
<b>Segmentation</b>	ATLAS [Basset <i>et al.</i> ] HotSpotDetection [Pécot <i>et al.</i> ] MS-Detect [Crivelli <i>et al.</i> ]
<b>Object/background separation</b>	C-CRAFT [Pécot <i>et al.</i> ] HullkGround [Chessel <i>et al.</i> ]
<b>Optical flow</b>	[Weickert <i>et al.</i> ]
<b>Tracking</b>	KLTracker [Lucas and Kanade]

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[http ://mobyle-serpico.rennes.inria.fr/cgi-bin/portal.py](http://mobyle-serpico.rennes.inria.fr/cgi-bin/portal.py)

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