

## Loïc SIMON

[loic.simon@ecp.fr](mailto:loic.simon@ecp.fr)

21 place de l'union européenne,

91300 Massy

+33 684 884 218

<http://www.mas.ecp.fr/vision/Personnel/simon/>

PhD Candidate  
MAS laboratory  
Ecole Centrale Paris

### Education

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- 2007-2011**      **Ecole Centrale Paris, France**  
PhD candidate in Computer Vision, in MAS laboratory, under the supervision of Pr. Nikos Paragios, on Image-Based Building Modeling using Shape Grammars.
- 2006-2007**      **Ecole Normale Supérieure de Cachan, France**  
Master's Degree : Mathematics, Vision and Learning.
- 2005-2006**      **Ecole Normale Supérieure de Cachan, France**  
Agregation (highly selective national French contest) in Mathematics, rank 37.
- 2003-2005**      **Ecole Normale Supérieure de Cachan, France**  
Bachelor and 1<sup>st</sup> year of Master in Applied Physics.
- University of Orsay, France**  
Bachelor and 1<sup>st</sup> year of Master in Theoretical Mathematics.

### Research Experience

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- May-Aug 2010**    **BIWI Laboratory at ETHZ, Zürich, Switzerland**  
Invited PhD student. Supervisor: Pr. Luc Van Gool.
- Apr-Aug 2007**    **Ecole Centrale Paris, France**  
Internship, on Bayesian 3D reconstruction of Buildings. Supervisor: Pr. Nikos Paragios.
- Apr-Aug 2005**    **Supélec, Paris, France**  
Internship, on Positive Impulsed Deconvolution: Application to Skin Tomography.  
Supervisor: Pr. Jean-François Giovanelli.

### Teaching Experience

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- Mathematics theory**      **Probability theory.** Addressed to 1<sup>st</sup> year students at Ecole Centrale Paris.  
Supervisor: Pr. Erick Herbin, **2007-2011.**
- Optimization and Simulation.** Addressed to 1<sup>st</sup> year students at Ecole Centrale Paris.  
Supervisor: Pr. Pascal Laurent, **2007-2008.**
- Applied Mathematics**      **Computer Vision.** Addressed to 2<sup>nd</sup> year students at Ecole Centrale Paris.  
Supervisor: Pr. Iasonas Kokkinos, **2008-2011.**

**Signal Processing.** Addressed to 2<sup>nd</sup> year students at Ecole Centrale Paris.  
Supervisor: Pr. Iasonas Kokkinos, **2008-2011.**

**Student projects**

Supervised many such projects at Ecole Centrale Paris.

**Publications**

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**Journals**

**Random Exploration of the Procedural Space for Single-View 3D Modeling of Buildings,**

L. Simon, O. Teboul, P. Koutsourakis, and N. Paragios,  
**IJCV (Special issue on Image Grammars), 2010.**

**Conferences**

**Shape Grammar Parsing via Reinforcement Learning,**

O. Teboul, I. Kokkinos, L. Simon, P. Koutsourakis, and N. Paragios,  
**CVPR 2011 in Colorado Spring, USA.**

**Segmentation of Building Facades using Procedural Shape Prior,**

O. Teboul, L. Simon, P. Koutsourakis, and N. Paragios,  
**CVPR 2010 in San Francisco, USA.**

**Single View Reconstruction Using Shape Grammars for Urban Environments,**

P. Koutsourakis, L. Simon, O. Teboul, G. Tziritas and N. Paragios,  
**ICCV 2009 in Kyoto, Japan.**

**In progress**

**Procedural Reconstruction of Buildings: Towards Large Scale Reconstruction of Urban Environments,** L. Simon, *PhD Dissertation,*

To be defended on: **25<sup>th</sup> of July 2011.**

3 pending publications in Computer vision and medical imaging.

**Specific Skills**

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**Programming**

C++, Python, Matlab, OpenCV, QT, OpenGL, OpenSceneGraph, GLSL.

**Languages**

French (mother tongue), English (fluent), Spanish (prior knowledge).

**Personal Interests**

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Handball (university contest), cycling, reading.