

## CURRICULUM VITAE

### PERSONAL DATA

**Full Name :** Sébastien LAGRANGE Sex : Male

**Born :** 2 April 1979

**Postal address :**

Laboratoire d'Ingénierie des Systèmes Automatisés (LISA)

62 Avenue Notre Dame du Lac, 49000 Angers, France

Tel : +33 2.41.22.65.56 Fax : +33 2.41.22.65.61

E-Mail :lagrange@istia.univ-angers.fr

### BIOGRAPHY

Sébastien Lagrange graduated in Physics from the University of Angers (France) in December 2002. He received Ph.D. degree in automatic control from the University of Grenoble in 2005. He is currently associate professor in the ISTIA engineering school of Angers (since 2007). He does his research on robotics using interval methods. Interval analysis is a numerical and guaranteed method for approximating sets. Guaranteed means here that inner and outer approximations of the sets of interest are obtained, which can be made as precise as desired, at the cost of increasing the computational effort. It thus becomes possible to achieve tasks still thought by many to be out of the reach of numerical methods, such as finding all solutions of sets of non-linear equations and inequalities or all global optimizers of possibly multi-modal criteria.

Sébastien Lagrange has taught courses on optimization, modeling and simulation, microelectronics processing and directed several student projects in the area of robotics.

### PUBLICATIONS

PUBLICATIONS	NUMBER
Journal publications	4
Book chapter	2
Conferences publications	4

### SELECTED PUBLICATIONS

- S. LAGRANGE, L. JAULIN, C. JUTTEN and V. VIGNERON  
"Non Linear Parameter Estimation". Journal IEEE Transactions on Automatic Control. Estimated publication in Avril 2008.
- S. LAGRANGE, N. Delanoue and L. Jaulin.  
"Injectivity Analysis using Interval Analysis : Application to Structural Identifiability". Journal Automatica. Accepted with minor comments. Estimated publication 2008.
- S. LAGRANGE, N. DELANOUE and L. JAULIN  
"On sufficient conditions of injectivity, development of a numerical test via interval analysis". Journal Reliable Computing. Vol. 13, issue 5, p. 409-421, 2007.
- S. LAGRANGE, N. DELANOUE and L. JAULIN.  
"Guaranteed numerical injectivity test via interval analysis". Trends in Constraint Programming, publisher ISTE, London, UK, may 2007. Chap 12, pages 237-248. Isbn = 9781905209972.
- A. BOUILLARD, B. GAUJAL, S. LAGRANGE and E. THIERRY.  
"Optimal routing for end to end guarantees : The price of multiplexing". 2nd International Conference on Performance Evaluation Methodologies and Tools. ValueTools 2007, Nantes, France. Best paper award.