

# CURRICULUM VITAE

## PERSONAL INFORMATION

Name: Silvia Allavena  
Date of birth: 27/02/1985  
Nationality: Italian  
Telephone: (+39) 010 353 6816  
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## EDUCATION

**01/01/2009 - today** : Ph.D student in Mathematics and Applications at the Department of Mathematics, Università degli Studi di Genova

**31/10/2008**: Msc degree in Mathematics at the Università degli Studi di Genova  
Thesis: *Interpolation and extrapolation methods for X-ray imaging within the NASA RHESSI mission*

Supervisors: Prof. Michele Piana, Dr. Anna Maria Massone

**15/11/2006**: Bsc degree in Mathematics at the Università degli Studi di Genova

## RESEARCH AREA

- Inverse problems in Solar Physics
- Formulation, implementation and validation of computational methods for the reconstruction of X-ray images of the Sun within the NASA RHESSI mission

## HONORS

- Finalist of the “Gianni Stagno“ Rotary Club award

## GRANTS

- GNCS (National Group for Scientific Calculus) - Foreign Sojourn 2010 grant for participation to: “*10th RHESSI Workshop*”

## SOJOURNS AT FOREIGN SCIENCE LABS

- ISSI (International Space Science Institute), Bern (Switzerland), February 2010
- ISSI (International Space Science Institute), Bern (Switzerland), April 2009

## **TALKS IN INTERNATIONAL MEETINGS**

- “Inverse Days 2010”, Oulu (Finland), December 15-17 2010. Title: “A compressive sensing approach to imaging reconstruction in X-ray solar astronomy”

## **PARTICIPATION IN MEETINGS**

- “10th RHESSI Workshop”, Annapolis (MD USA), August 2010
- “9th RHESSI Workshop”, Genova, September 2009

## **PUBLICATIONS**

- Allavena S, Piana M, Massone A M 2010 An interpolation/extrapolation approach to X-ray imaging of solare flares, submitted to Inverse problems and imaging

## **CONFERENCE PROCEEDINGS**

- Massone A M, Emslie A G, Hurford G J, Prato M, Allavena S and Piana M 2008 A novel imaging method using interpolation of RHESSI visibilities with super-resolution effects, 8th RHESSI Workshop, Potsdam, Germany, 02-06 Settembre 2008

## **TEACHING ACTIVITY**

### **ACADEMIC YEAR 2010/2011**

- Freshmen tutor at the Department of Engineering of the Università degli Studi di Genova

### **ACADEMIC YEAR 2009/2010**

- Freshmen tutor at the Department of Computer Science of the Università degli Studi di Genova
- Freshmen tutor at the Department of Engineering of the Università degli Studi di Genova
- Matlab Laboratory at the Department of Engineering of the Università degli Studi di Genova

### **ACADEMIC YEAR 2008/2009**

- Matlab Laboratory at the Department of Engineering of the Università degli Studi di Genova

### **ACADEMIC YEAR 2007/2008**

- Freshmen tutor at the Department of Mathematics of the Università degli Studi di Genova