

# CURRICULUM VITAE

*Rossella Cassano*

## PERSONAL INFORMATION

**Home Address:** via G.Favilli, 12 Bologna cap. 40141, Italy

**Current Position:** Post-Doc position at Istituto Nazionale di Astrofisica (INAF) - Istituto di Radioastronomia (IRA) - via P.Gobetti, 101, cap.40129, Bologna (Italy)

**Telephone & E-mail:** Office (+39) 051-6399394, e-mail:rcassano@ira.inaf.it

**Birth Date:** May 12, 1978 (Gioia del Colle (BA), Italy)

**Marital status:** Married

## EDUCATION

- **2007** PhD Title in Astronomy, University of Bologna, Italy; Thesis title: *Statistical properties of radio halos and the re-acceleration model* Advisors: Prof. G. Setti, Dr. G. Brunetti

- **2003:** *Degree in Astronomy*, University of Bologna, Italy; Final grade: 110/110 *cum laude*; Thesis title: *Spectral energy distribution of relativistic electrons in galaxy clusters* Advisors: Prof. R. Fanti, Dr. G. Brunetti, Dr. C. Gheller

## AWARDS

- **2008** awarded with the “*Tacchini Prize*” by the Italian Astronomical Society (SAIt) for the best PhD Thesis in 2007

## FELLOWSHIPS

- **2010:** short term post-doc fellowship (3 months) at Harvard-Smithsonian Center for Astrophysics (USA);

- **2010 to date:** 1 year post-doc fellowship at INAF-IRA in Bologna;

- **2008 - 2010:** 2 years post-doc fellowship at INAF-IRA in Bologna;

- **2007:** 1 year research fellowship at the Astronomy Dep., Bologna University;

- **2005:** “Marco Polo” fellowship at Max Planck Institute for Astrophysics (Germany);

- **2003:** PhD fellowship (three years) from the Astronomy Department of the Bologna University;

- **2003:** graduate-student research fellowship at INAF - IRA in Bologna.

## GRANTED VISITING PERIODS

- **2010:** Harvard-Smithsonian Center for Astrophysics (USA);
- **2008:** National Radio Astronomy Observatory (USA).
- **2008:** Harvard-Smithsonian Center for Astrophysics (USA);
- **2008:** U.S. Naval Research Laboratory (USA);
- **2005:** Max Planck Institute for Astrophysics (Germany);

## REFEREE ACTIVITY & COMMITMENTS

- **2008 to date:** Referee for “Astronomy & Astrophysics”, ”The Astrophysical Journal”.
- **2008 to date:** In the LOFAR “Survey Key Project” as post-doc member;
- **2008:** Contributed to the “Italian White Paper” for LOFAR.
- **2007:** Referee for observational proposals at the GMRT.
- **2007:** Contributed to “*Italian Vision for Moon Exploration*”.

## INVITED TALKS AT CONFERENCES & MEETINGS

- 1) **Invited Talk** at *Non thermal phenomena in colliding galaxy clusters*, Nice (France), 15-18 November, 2010;
- 2) **Invited Talk** at *Surveying the low frequency sky with LOFAR*, Leiden (The Netherlands), 8-12 March, 2010;
- 3) **Review Talk** at *The Low Frequency Radio Universe*, Pune (India), 8-12 December, 2008;
- 4) **Invited Talk** at *LOFAR: Science & Perspectives*, Bologna, 5-6 June, 2008.

## SUCCESSFUL OBSERVATIONAL PROPOSALS

She has been P.I. of several proposals, including the proposals for the “GMRT Radio Halo Survey” (about 150 hrs of observation) and VLA proposals.

She has been Co.I. of several proposals for VLA, GMRT, Chandra, XMM-Newton and for computational platforms.

## RESEARCH ACTIVITY & PUBLICATIONS (IN BRIEF)

She is interested in the study of Galaxy Clusters and their non thermal components. In the following the most important topics :

1) *Models of Non-Thermal emission from Galaxy Clusters*

- statistical calculations
- expectation for future low frequency radio surveys
- particle acceleration via MHD turbulence

2) *Radio Survey of Galaxy Clusters*

3) *New Correlations for cluster radio halos*

### Publications

She has 35 papers and conference proceedings in the field, including a paper published in "Nature".

### Review Paper

R. Cassano, "Large-scale diffuse radio emission from clusters of galaxies and the importance of low frequency radio observations" (2009), Invited Review at the Conference The Low-Frequency Radio Universe, in ASPC 407, 223; D.J. Saikia, D. Green, Y. Gupta, T. Venturi Eds.