

CARLO BOLDETTI

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EDUCATION

June 2006

PhD at the [University of Sheffield](#), [Department of Mechanical Engineering](#), on high resolution measurements of intra-granular deformation in structural materials at high temperature [sponsored by [EPSRC](#) and [IMMPETUS](#)]

- Numerical work with non-linear [FE](#) techniques and multi-scale modelling
- Experimental work on rolling and compression tests and use of grid and microgrid techniques to measure the strain at different scales
- Use of [Scanning Electron Microscope](#) and [EBSD](#) technique
- Metallurgy: casting of [stainless steel](#); anodising, etching, electro-etching and electro-polishing techniques on [stainless steel](#) and aluminium alloys
- Laboratory teaching, marking and supervising Master's students in their final year project
- Extensive writing of [scientific articles](#) published in international journals and conference proceedings

July 2003

- [University of Cagliari](#) (Italy), [University of Sheffield](#) (UK) by scholarship MEng Honours Mechanical Engineering, Grade I (*first*)
- 2002-2003 Scholarship from the [University of Sheffield](#) to work on FE simulations of hot rolling processes of aluminium
- 2001-2002 [European scholarship](#) to study at [The University of Sheffield](#)

WORK EXPERIENCE

Sept 2006 – Present

Structural Analysis Engineer at [Renault F1 Team](#), Enstone (Oxfordshire)

- Finite Element modelling and stress analysis of race car components
- Modelling of composite parts including wings and suspension members, laminate optimization and test set up and supervision
- Modelling of metal parts, including gearbox components, differential, clevises, rockers, steering racks etc.
- Impact simulations with large deformation using explicit codes
- Modelling adhesive joints using non linear techniques
- Highly competent user of MS Office, particularly Excel
- Proficiency in dealing with contact problems, large deformations, high strain rates and high temperatures
- High competence in [ABAQUS](#), [HYPERMESH](#), [PATRAN/NASTRAN](#), Laminite Modeller
- Working knowledge of [CATIA V5](#), [ANSYS](#), Matlab

Sept 2003 – July 2006

[Tutor](#) at Tipton Hall of Residence, [Sheffield University](#) (part time)

- Pastoral care with direct responsibility for over 70 students
- Ensuring discipline and providing psychological support to students
- Team work with the Hall staff

Oct 2002 – Jun 2003

Research placement sponsored by [IMMPETUS](#), The University of Sheffield

- Individual research work on FE non-linear analysis of hot rolling processes
- Experimental validation of numerical results
- Assisted students in their final year project
- Team work and participation in residential team building courses

COMMUNICATION SKILLS

- Highly competent in writing of [scientific reports for publication](#)
- Experienced public speaker including presentations to sponsors and academia

LANGUAGES

- Italian: mother tongue
- English: high level of comprehension and usage (written and spoken)
- Spanish: basic understanding

OTHER ACHIEVEMENTS

Dec 2009 – Present

Construction of an elementary school in a rural area of Uganda

- Extensive fundraising with over £25,000 raised in the first year
- Creation and management of a website to increase exposure and awareness for the school, see www.seeta-nazigo.com
- Active involvement in decision making regarding the school build work and management