

CARLO BOLDETTI

Nationality: British and Italian

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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
- 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 front and rear wings, suspension parts, crash structures, steering column, etc.
- Modelling of metal parts, including gearbox components, differential, clevises, rockers, steering racks, roll hoop, etc.
- Creation of test specs, test set up and supervision
- Impact simulations with large deformation using explicit codes
- Modelling adhesive joints using non linear techniques
- Proficiency in dealing with contact problems, large deformations, high strain rates and high temperatures
- High competence in [ABAQUS](#), [PATRAN/NASTRAN](#), Laminate Modeller, [HYPERMESH](#)
- Composite and metal optimization: [OptiAssist](#), Genesis, Optistruct
- Working knowledge of [CATIA V5](#), [ANSYS](#), Matlab

Sept 2003 – July 2006 **Tutor** at Tapton 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

- Bilingual English-Italian
- Spanish: basic understanding
- Highly competent in writing of **scientific reports for publication**
- Experienced public speaker including presentations to sponsors and academia

OTHER ACHIEVEMENTS

Dec 2009 – Present Construction of a primary 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
- Promotion and coordination of volunteering work

Referees available on request or here: <http://www.boldetti.com/referees.htm>