

# M.G. Baldi

PhD

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## Current Positions

**Research Fellow**, *Energy and environmental sustainability indicators for the management of urban and rural areas – Application of the Second Law of Thermodynamics to urban energy use.*

Department of Industrial Engineering – University of Florence, Italy

**Technical Manager**, *Intelligent Energy Europe, REBUS - Renovation for Energy efficient BUildingS.*

Energy Agency of Florence, 50144 Florence, Italy

**Technical Manager**, *Intelligent Energy Europe, Nearly Zero-Energy Sports Facilities.*

Energy Agency of Florence, 50144 Florence, Italy

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## Education & Professional Qualifications

2016 **Member of EBC-Energy in Buildings and Communities Programme Annex64 - LowEx Communities.**

International Energy Agency

2014 **Ph.D. – Processes, Materials and Constructions in Civil and Environmental Engineering and for the Protection of the Historic Monumental Heritage.**

University of Florence – TU Braunschweig

2011 **Professional Licence.**

Civil and Environmental Engineering

2010 **MSc – Building Engineering.**

Università di Firenze

2007 **BSc – Building Engineering and Architecture.**

University of Florence

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## Professional Experiences

Jun 2016 **Technical Manager**, *Intelligent Energy Europe, REBUS - Renovation for Energy efficient BUildingS.*

Energy Agency of Florence, Florence, Italy

Jan 2015 **Technical Manager**, *Intelligent Energy Europe, Nearly Zero-Energy Sports Facilities.*

Energy Agency of Florence, Florence, Italy

Apr 2012 **Technical Manager**, *Interreg IVC Energy Europe, Surpassing Energy Targets through Efficient Public Buildings.*

Dec 2014

Energy Agency of Florence, Florence, Italy

Jan 2011 **Freelance**, *Modeling and analysis of energy use at building and urban scale, Building Physics, Sustainability, Energy management, Environmental Analysis - LCA, Heating and Cooling.*

Florence, Italy

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## Visiting

- Nov 2014 **MIT - Massachusetts Institute of Technology**, *Cambridge*, Massachusetts.  
May 2015 Research assistant
- Feb 2014 **Dalhousie University**, *Halifax*, Nova Scotia.  
Aug 2014 Research assistant
- Apr 2012 **Technische Universität Braunschweig**, Germany.  
Aug 2012 Research assistant

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## Computer Skills

Data Analysis	Matlab, R, Visual basic	Plotting	Matlab, R, Visual basic
Engineer	Energy-Plus, ESP-r, TRNSYS, TAS, Ecotech weather tool, Sima-Pro, Arc-View, ESRI's ArcGIS, QGis Autocad, Archicad, Indesign, Revit (BIM), C4D, sap2000	Miscellaneous	Microsoft Office, Latex word processing, Photoshop, Illustrator,
OS	MAC OS, Windows		

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## Languages

- English **fluent**  
Italian **mother tongue**

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## Projects

- Apr 2015 **Energy and environmental sustainability indicators for the management of urban and rural area.**  
Application of the Second Law of Thermodynamics to urban energy use.
- Apr 2014 **N0e-sport.**  
Nearly Zero-Energy Sports Facilities of the Intelligent Energy Europe.
- Apr 2012 **Serpente.**  
Dec 2014 Surpassing Energy Targets through Efficient Public Buildings of the Interreg IVC Energy Europe.

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## Courses and School

- June 18 - 26 **PhD Summer School on Building physics in urban environments**, *Politecnico di*  
2015 *Torino*.  
Torino, Italy.

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## Talks

- 2016 **The international Conference on Sustainability in Energy and Buildings 2016 (SEB-16).**  
Torino, Italy
- 2015 **The international Conference on Sustainability in Energy and Buildings 2015 (SEB-15).**  
Lisbon, Portugal
- 2014 **The international Conference on Sustainability in Energy and Buildings 2014 (SEB-14).**  
Cardiff, Wales,UK

- 2014 **27th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems (ECOS).**  
Turku, Finland
- 2013 **Sustainable building and refurbishment for next generation (CESB13).**  
Prague, Czech Republic.
- 2013 **The energy management of public buildings: strategies and experiences.**  
Bologna, Italy.

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## Publications

### Journals

- 2016 MGB and G. Grazzini, The Second Law and the energy use mapping for sustainability planning, *J. Energy Procedia*, publishing
- 2016 MGB and G. Grazzini, The analysis of potential and current state of urban energy use, *Bollettino degli ingegneri*, n.1/2, 2016 publishing
- 2015 MGB and L. Leoncini, Effect of reference state characteristics on the Thermal Exergy analysis of a building, *J. Energy Procedia*, 10.1016/j.egypro.2015.12.208
- 2014 MGB and L. Leoncini, Exergy as a Parameter for Building Energy Assessment, *Journal of Civil Engineering and Architecture*, 10.17265/1934-7359/2015.06.012
- 2014 MGB and L. Leoncini, Thermal exergy analysis of a building, *J. Energy Procedia*, doi: 10.1016/j.egypro.2014.12.436
- 2011 MGB, Progetto tra integrazione e interazione: il caso di stoccarda, *Bollettino degli ingegneri*, n.10:3-14, 2011.

### Peer-reviewed conference proceedings

- 2015 MGB, L. Leoncini, Building Thermal exergy analysis, *Proceedings of the Med Green Forum: Mediterranean Green Building and Renewable Energy*, publishing.
- 2014 MGB, Applying exergy analysis to an urban district thermodynamic system, *Proceedings of the 27th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems*.
- 2013 MGB and L. Leoncini, Exergy performance as a measure of building efficiency, *Proceedings of the iiSBE Forum of Young Researches in Sustainable Building - Best Paper Young Researches* .
- 2013 MGB, The energy management of public buildings: strategies and experiences, *Proceedings of the AICARR – La Gestione Energetica Del Patrimonio Edilizio Pubblico: Strategie ed esperienze: 75-86*.

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## Personal interests

Expert enjoyment of urban sustainability, Building Architecture, Bio-climatic, Landscape Architecture, Urban Planning, Urban growth and suburbs issues, ESCo, urban green economy and the integration of new technologies at building and urban scale; non-expert of contemporary arts, cinema and music. Running, Yoga, Tennis and Gym. Last but not least a great interest of the Italian gastronomic and enological culture.