

PERSONAL INFORMATION

Lorenza Ferrario

📍 Fondazione Bruno Kessler, Via Sommarive 18, 38123 Povo (TN) Italy

WORK EXPERIENCE

Current position at the FBK – Fondazione Bruno Kessler

- **2017-today: MNF infrastructure area manager**
- 2010 – 2017: Management of the FBK cleanrooms
- 2007 – 2015: senior researcher at MTLab FBK responsible for the R&D of silicon based photovoltaic technology
- 1994-2006: junior researcher at the Microsystem Division ITC-irst, with competences on numerical simulation of process and devices
- 1988-1994: junior researcher in the information technology area

Business or sector Silicon technology, materials, nano-micro technology

EDUCATION AND TRAINING

- PhD in Engineering Sciences, University of Freiburg, Germany, 2007, with Title 'A Software System for the Advanced Management of Microsystem Cleanroom' Replace with EQF (or other) level if relevant
- Statistical Sciences, University of Bologna, 1988 (110/110 Magna cum laude)

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	B2	C1
Replace with name of language certificate. Enter level if known.					
German	A2	A2	A2	A2	A2
Replace with name of language certificate. Enter level if known.					

- Communication skills
- good communication skills gained through courses and my experience as area manager
- Organisational / managerial skills
- leadership (currently coordinating a team with 20 people, and the IPCEI ME1 FBK working group)
- Job-related skills
- silicon technology – processing competences in etching, PVD, PECVD, characterization
 - silicon photovoltaics
 - ISO quality management
 - HSS management in laboratory with chemical risk
 - Good planning gained by experience (management of several projects)
 - Team management:
 - Team working course with Performando, March – May 2010
 - Management course with SOA School, October 2013 – May 2014 “Percorso di sviluppo manageriale”
- Computer skills
- software requirement analysis with UML
 - programming: C, JAVA, SQL, DBMS
- Other skills
- silicon process simulation, Open Data, FAIR data
- Driving licence
- Driving license B

ADDITIONAL INFORMATION

Project management

- **FBK Project Manager for IPCEI Microelectronics 2019-2024**
- FBK coordinator of the Isi-CPV MIUR Project 2012-2015
- Technology transfer projects:
 - VdA2000, for Olivetti I-Jet, 2000-2002, for the development of a process for MEMS silicon ink jet printer head, project
 - leader
 - Prosol, for Opto-I, early-stage production of silicon based photovoltaic cells based on industrial oriented process, 2008

Networking and dissemination – recent experiences

- It-fab, the Italian network of cleanroom: coordination group
 - ENL, EuroNanoLab, the European network of cleanroom, in the process to be recognized as ESFRI FBK contact point
 - data management expert group head
 - GO NANOFAB FAIR initiative referent
- Nanoinnovation: 2018, 2019 and 2020 – School on Nanotechnologies co-chair and organizer
Several spillover actions in collaboration with IPCEI partners

Teaching

- ICT PhD School, lectures on "Introduction to the design and simulation of electronic sensors and MEMS", lecturer, a.y.2002-2003 , 2005-2006, 2007-2008
- Master on NanoMicro, University of Trento-Fondazione Bruno Kessler, teaching assistant, a.y. 2006-2007, 2007-2008,2008-2009

Other

In the founder group, 2009, of the "FBK 0-100 initiative", the first FBK action supporting family and work balance for FBK staff: organization of summer camps for FBK families children. Collaboration with the initiative from 2009 to 2016

Recent publications

- Patemoster, Giovanni; Ferrario, Lorenza; Acerbi, Fabio; Gola, Alberto Giacomo; Bellutti, Pierluigi, Silicon Photomultipliers Technology at Fondazione Bruno Kessler and 3D Integration Perspectives, ESSDERC 2019 - 49th European Solid-State Device Research Conference, IEEE, 2019, pp. 50-53, (49th European Solid-State Device Research Conference (ESSDERC 2019), Cracow, Poland, 23-26 September 2019)
- Nicolai, Massimo; Patemoster, Giovanni; Zanucoli, Mauro; de Ceglia, Giuseppe; Bellutti, Pierluigi; Ferrario, Lorenza; Sangiorgi, Enrico; Fiegna, Claudio,
- Analysis of the EWT-DGB solar cell at low and medium concentration and comparison with a PESC architecture, in «PROGRESS IN PHOTOVOLTAICS», vol. 25, n. 6, 2017, pp. 417-430
- Giovanni Patemoster, Massimo Nicolai, Giuseppe de Ceglia, Mauro Zanucoli, Pierluigi Bellutti, Lorenza Ferrario, Enrico Sangiorgi, and Claudio Fiegna "Fabrication, simulation and experimental characterization of EWT solar cells with Deep Grooved Base contact", IEEE Journal of Photovoltaics, accepted for publication, 2016
- G. Patemoster, M. Zanucoli, P. Bellutti, L. Ferrario, F. Ficorella, C. Fiegna, P. Magnone, F. Mattedi, E. Sangiorgi, Fabrication, characterization and modeling of a silicon solar cell optimized for concentrated photovoltaic applications, in "SOLAR ENERGY MATERIALS AND SOLAR CELLS", vol. 134, 2015, pp. 407-416
- Antonino Calà Lesina, Giovanni Patemoster, Francesca Mattedi, Lorenza Ferrario, Pierre Berini, Lora Ramunno, Alessio Paris, Alessandro Vaccari, Lucia Calliari, Modeling and Characterization of Antireflection Coatings with Embedded Silver Nanoparticles for Silicon Solar Cells, in "PLASMONICS", 2015
- G. Patemoster, P. Bellutti, A. Collini, L. Ferrario, F. Ficorella, F. Mattedi, BACK-CONTACT VERTICAL JUNCTION SILICON SOLAR CELLS FOR CONCENTRATING PHOTOVOLTAICS, Proceedings of 28th European Photovoltaic Solar Energy Conference and Exhibition, 2013, pp. 672-675, (28th European Photovoltaic Solar Energy Conference and Exhibition, Paris, September 2013)
- G. Patemoster, P. Magnone, P. Bellutti, A. Collini, R. De Rose, L. Ferrario, F. Ficorella, C. Fiegna, F. Mattedi, E. Sangiorgi, M. Zanucoli, 2012 Silicon concentrator solar cells: fabrication, characterization and modelling for future improvements, Proceedings of the 27th European Photovoltaic Conference, WIP Wirtschaft und Infrastruktur GmbH & Co Planungs KG, Munchen, pp. 181-184, (European Photovoltaic conference and Exhibition, 09/24/2012) Frankfurt,
- G. Patemoster, P. Bellutti, L. Ferrario, F. Mattedi, E. Serra, Optimization of the Emitter and the Metal-Grid Design for Concentrating Silicon Photovoltaics, 26th EUPVSEC 2011, 09/05/2011 - 09/09/2011, Hamburg, Germany
- Z. Yuan, G. Pucker, A. Marconi, F. Sgrignuoli, A. Anopchenko, Y. Jestin, L. Ferrario, P. Bellutti, L. Pavesi, 2011 Silicon nanocrystals as a photoluminescence down shifter for solar cells, in "SOLAR ENERGY MATERIALS AND SOLAR CELLS (ISSN:0927-0248)", pp. 1224-1227 vol. 95,
- Y. Jestin, G. Pucker, M. Ghulinyan, L. Ferrario, P. Bellutti, A. Picciotto, A. Collini, A. Marconi, A. Anopchenko, L. Pavesi, 2010 Silicon solar cell with nanocrystalline silicon down shifter: experiment and modelling, vol. 772, (Next Generation (Nano) Photonic and Cell Technology for Solar Energy Conversion, 08/18/2010) San Diego, USA,
- Jean Pierre Zendri, Michele Bignotto, Michele Bonaldi, Massimo Cerdonio, Livia Conti, Lorenza Ferrario, Nicola Liguori, Antonio Maraner, Enrico Serra, Luca Taffarello, Loss budget of a setup for measuring mechanical dissipations of silicon wafers between 300 and 4 K, in "REVIEW OF SCIENTIFIC INSTRUMENTS", 2008, pp. 033901-1-033901-12

FIRMATO IN ORIGINALE