STIVEN FORTI

Staff Scientist @ Istituto Italiano di Tecnologia

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PRESENT SITUATION

Position	Staff Scientist
Activity	Manager of the Spectromicroscopy facility & Raman Lab at the Center for Nanotechnology Innovation of IIT
Research	Novel 2DM for Quantum Technology; Interfaces in vdW structures; Large-Area Synthesis of 2DM; ANN applied to Signal Unmixing
Developments	Enlarging the spectrum of materials to colloidal nanocrystals and semiconducting polymers

PAST EXPERIENCE

Senior Postdoc

Istituto Italiano di Tecnologia

April 2016 – March 2021 Pisa, IT

- Camilla Coletti. Optoelectronic properties of 2D materials and their heterostructures.

Visiting Scientist

Advanced Light Source

March 2019 – June 2019 Berkeley, CA

- Eli Rotenberg. Beamline 7.0, ALS.

Postdoctoral Fellow

Max Planck Institute for Solid State Research

February 2014 – April 2015 Stuttgart, DE

- Ulrich Starke. Engineering of epitaxial grafene's electronic properties. Lateral superlattices.

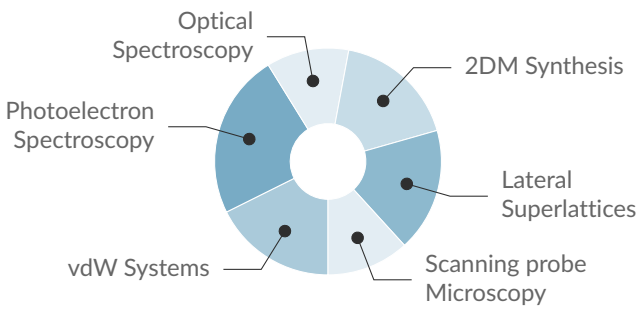
Research assistant

Consiglio Nazionale delle Ricerche

February 2009 – August 2009 Trento, IT

- Salvatore Iannotta & Nicola Coppedé. Synthesis of dye-sensitized solar cells based on metal phtalocyanines via supersonic molecular beam epitaxy SuMBE.

SCIENTIFIC OVERVIEW



EDUCATION

PhD in Physics (Dr. rer. nat.)

FAU Erlangen-Nürnberg

2009 – 2014 Stuttgart, DE

- Ulrich **Starke**. *Large-area epitaxial Graphene on SiC(0001).* **1.0, *Magna cum laude***

MSc in Physics

Università di Trento

2006 – 2008 Trento, IT

- Lorenzo **Pavesi** & **Vittorio Pellegrini**. *Anomalous Magnetotransport in Mn-doped 2DHG.* **110/110 *cum laude***

BSc in Physics

Università di Trento

2003 – 2006 Trento, IT

- Antonio **Miotello**. *Synthesis of planar catalysts by PLD for the production of hydrogen from $NaBH_4$.* **110/110 *cum laude***

Maturità Scientifica

Liceo G. Galilei di Trento

1998 – 2003 Trento, IT

- *Percorso PNI* **92/100**

INDICATORS

Publications	65	**IF total**	426
Citations	3128	**IF/article**	7.9
h-index	29	**Source**	Scholar
Art. IF>10.5	13	**1st Author**	7
Last Author	2	**Corresponding**	4

LANGUAGES

Italian
English
German

EXPERIMENTAL KNOW HOW

ARPES	14+ years of experience on lab and synchrotron equipment
XPS	14+ years of experience on lab and synchrotron equipment
LEED	14+ years of experience of pattern interpretation
AFM	Several years of experience on Veeco, Anasys and Brucker microscopes
STM	Working since several years on a Omicron LT-STM
SEM	Used Zeiss Merlin and Jeol JSM7500FA
LEEM	Experience gathered during several beamtimes at MAX-lab, Elettra and ALS
Raman/PL	Managing the Renishaw Invia micro-Raman spectrometer.
UV/Vis/IR	Investigated the optical properties of 2DM via optical spectroscopy
Transport	Carried out magneto-transport experiments at low-T on various devices
PVD	Deep knowledge of thin film synthesis at single atom-thickness in UHV with e-beam or Knudsen evaporators
(MO)CVD	Synthesis of TMDs on various substrates using different precursors and promoters
PECVD	Synthesis of ultrathin protective carbon layer for a commercial project
PLD	Synthesis of planar catalysts from carbon targets

SOFTWARE SKILLS

Igor Pro	Excellent: Data analysis and scripting
Python	Excellent: Scripting and simple GUIs with Qt and web Apps with Dash
Matlab	Used for a Machine Learning course
Origin	Used in the past. Abandoned for IgorPro
Mathematica	Solid language knowledge. Used also for illustrations
Pov-Ray	Several illustrations: **Example1**, **Example2**
SAP	Gestione ordini e acquisti.
MS Office	Excellent: Word, Excel, PowerPoint, Outlook, Power Bi

PROJECTS & PROPOSALS

2023-2025	**NQSTI**. National Quantum Science and Technology Institute funded by PNRR. Samples synthesis. Characterization STM, PES, LEED. About **600 k€**
2023-2025	**THE**. Tuscany Health Ecosystem funded by PNRR. Production and characterization of graphene electrodes.
2024-2025	PRIN project **MIMOSA**. Samples synthesis. Characterization STM, PES, LEED. about **45 k€**
2022	Co-writer of the PRIN MIMOSA project
2016-2023	Involved in several WPs of the European **Graphene Flagship**: WP1, WP3, WP15
2021	Written and submitted **ERC StG** proposal
2020	Won IIT internal grant for Equipment Upgrade: **381 k€**
dal 2019	Submitted 7 successful proposals at Elettra and MAX-IV
2021	Calipso funds for Proposal 20210167 at MAX-IV. Travel and accomodation for 2 people
2020	Calipso funds for Proposal 20190862 at MAX-IV. Travel and accomodation for 2 people
2019	Calipso funds for Proposal 20190280 at MAX-IV. Travel and accomodation for 2 people

OTHER EXPERTISE

Synchrotron	Profound expertise gained during the 27 beamtimes in the best labs around the world
Industry	Partner: **Infineon Technologies AG**. Process development and optimization.
Industry	Partner: **R.i.CO. srl**. Development of flexible sensors.
Industry	Partner: **Aixtron Ltd.**. Feasibility study for the in-line integration of production processes.
Safety	Preposto alla sicurezza for two laboratories. Certificazione antincendio.
Editorial	Reviewer for several internationa Journals. Guest Editor for **Research Topic** on *Optoelectronic Properties of 2D Systesms* for Frontiers in Physics. Guest Editor for **Special Issue** on the Journal of Physics: Condensed Matter: "Novel Electronic Phenomena by Interface Manipulation of Van der Waals Materials"
Development	Design and project of the combined ARPES/STM system. Presently functioning.

TEACHING

- 2023 - ARPES in lab for the students of "Materials Engineering" - UniPi
- 2021 - 90 min Opening plenary Lecture at Summer School in Cottbus (BTU): "Synthesis, Characterization and Applications of Layered Materials"
- dal 2020 - 2h lecture on photoelectron spectroscopy for the "Materiali a bassa dimensionalità" course - UniPi
- dal 2018 - Lecture in lab for the "Materiali Nanostrutturati" course - UniPi
- 2007 - Didactic support for laboratory lectures. Enginnering faculty - UniTN

MENTORING

2011-2015	Alexander Stöhr (PhD)
2012-2016	Stefan Link (PhD)
2016-2018	Antonio Rossi (PhD)
2017-2018	Giulia Piccinini (Master)
2019- 2023	Vladislav O. Khaustov (PhD)
2023- 2026	Gianluigi Baiardi (PhD)
2024- 2024	Thomas Spinelli (Bachelor)

PRIZES AND MEMBERSHIPS

2023	Front Cover of ACS Appl. Eng. Mater., Issue 7, July
from 2020	Member of the scientific commettee for project evaluation of the Deutsche Forschungsgemeinschaft (DFG)
2020	Abilitazione Scientifica Nazionale (ASN) for the sector 02/B1, II fascia
2020	Winner of the Science Mug Contest of SPECS GmbH for the best scientific image (LEED on sapphire)
2019	Back cover page of Small Vol 15 No. 50
2018	Invited talk at SPIE Defense and Commercial Sensing Orlando (FL)
dal 2014	Alumnus of the International Max-Planck Research School for Advanced Materials
2010-2015	Member of the German Physical Society (DPG)
2009-2014	Member of the International Max-Planck Research School for Advanced Materials (IMPRS-AM)
2009-2012	Provincia di Trento grant for talented students abroad
2006 & 2008	Premio *Cassa Rurale* for the highest score
2003	Premio *Cassa Rurale* for the high school score

CONFERENCES & SCHOOLS

May-2009	Uni Hamburg Seminar. **Invited**
Jun-2010	Everyday-Science, Bonn. **Poster**
Mar-2011	DPG, Dresden. **Poster**
Jul-2011	Summer School, Erice. **Poster**
Mar-2012	DPG, Berlin. **Poster**
Sep-2012	Graphene Week, Delft. **Poster**
Oct-2013	ICSCRM, Myazaki. **Oral**
Mar-2014	DPG, Dresden. **Poster**
May-2014	SPP meeting, Chemnitz. **Poster**
Mar-2015	DPG, Berlin. **Oral**
Mar-2017	Graphene 2017, Barcelona. **Poster**
Jun-2017	ICSSI, Padova. **Oral**
Sep-2017	Graphene Week, Athen. **Oral**
Oct-2017	GFS meeting, Sestri Levante. **Oral**
Apr-2018	SPIE, Orlando (FL). **Invited**
Sep-2018	TNT, Lecce. **Oral**
Sep-2018	GFS WP3 meeting, Munich. **Oral**
Apr-2019	UC Davis Seminar. **Invited**
Sep-2021	SuSc Lecture, Cottbus **Invited**
Jan-2024	1st NQSTI Congress, Rome **Invited**
Mar-2024	IWEPNM Lecture **Invited**

INTERESTS

Sport
Biking, hiking and nordic ski

Sailing

DIY
Wooden pieces of furniture

Music
Guitar and Keyboard

Reading

3rd February 2024
Forti Stiven, Dr. rer. nat.

Le informazioni contenute nel presente CV vengono rese ai sensi e per gli effetti degli artt. 46 e 47 del DPR 445/2000