Stefano STASSI

Ph.D., date of birth 1 June 1985

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Education

29/12/2009 - 05/02/2013 **PhD in Physic**
Thesis: Tactile sensor devices exploiting the tunnelling conduction in piezoresistive composites
(Politecnico di Torino; Center for Space Human Robotics, IIT@PoliTo - Torino (Italy))

18/09/2007 - 10/09/2009 **Master degree in Micro and Nanotechnologies for Integrated Systems**
Thesis: Synthesis and characterization of silver and copper nanoparticles for low temperature fabrication of metallic interconnections
(Politecnico di Torino, INPG, EPFL – Torino (Italy), Grenoble(France), Lausanne(Switzerland))
Final mark: 110 cum laude/110

13/09/2004 - 07/09/2007 **Bachelor degree in Physical Engineering**
(Politecnico di Torino – Torino, Italy)
Final mark: 110 cum laude/110

Sept. 1999 –Jun. 2004 **High School Diploma**
(Scientific certificate –Liceo Scientifico "Giuseppe Peano", Cuneo, Italy).
Final mark: 92/100

Internship Experience

Mar.– Aug. 2009 **BNNI- Berkeley Nanosciences and Nanoengineering Institute, Department of Mechanical Engineering, University of California, Berkeley, USA**
Synthesis and characterization of silver and copper nanoparticles for low temperature fabrication of metallic interconnections

Feb.– Sept. 2007 **I.N.R.M – National Institute of Metrologic Research, Torino, Italy**
Realization and characterization of magnetic tunnel junction

Working Experience

Sept. 2016 - Now **Assistant professor**
(Dipartimento di Scienza Applicata e Tecnologia, Politecnico di Torino – Torino (Italy))

Aug. 2014 – Feb. 2015 **Visitor Researcher at Lawrence Berkeley National Laboratory**
Project: Plasmonic antennas and nanochannels embedded on microresonators for single nanoparticle identification
(Molecular Foundry, Lawrence Berkeley National Labroratory – Berkeley (California, USA))

Jul. 2013 – Sept. 2016 **PostDoctroral researcher**
Project: Development of innovative materials and process techniques for the fabrication of M/NEMS and optical devices for application in environmental-security-agricultural-biomedical sectors
(Dipartimento di Scienza Applicata e Tecnologia, Politecnico di Torino – Torino (Italy))

Feb. 2013 – Jun. 2013	**Fellow scientist** **Project: Preparation of a metal-polymer composite material with piezoresistive properties for the fabrication of a matrix tactile sensor.** *(Center for Space Human Robotics, IIT@PoliTo - Torino (Italy))*
Apr. 2011 – May 2011	**Collaboration contract** **Project: Research study on composite material based on a polymeric matrix for packaging of high-power semiconductor devices** *(Dipartimento di Scienza Applicata e Tecnologia, Politecnico di Torino – Torino (Italy))*

Awards

2009	**Best graduated of Politecnico di Torino a.a. 2008-2009** **Award "Associazione Cavalieri di Gran Croce"**

Languages

Italian	Mother tongue
English	Very good level both in writing and speaking; Master course in English language Certificates: P.E.T with merit;
French	Medium level Certificate: , A2, Cadre Européen Commun de Référence

Publications

Stefano Stassi is author and co-author of 42 publication on international peer-reviewed journals, 9 conference proceedings and 3 book chapters. His publications were cited 742 times and his H-factor is 16 (data from SCOPUS). He is referee of *Sensors and Actuators A&B, Nanoscale* and *ACS applied materials & interfaces* journals.
He has participated to 13 international conference with oral and poster presentations.

JOURNAL PAPERS:

1. **Evolution of nanomechanical properties and crystallinity of individual titanium dioxide nanotube resonators**
   Stassi, S., Lamberti, A., Roppolo, I., Casu, A., Bianco, S., Scaiola, D., Falqui, A., Pirri, C.F., Ricciardi, C.
   Nanotechnology (2018), 29 (8): 085702, DOI: 10.1088/1361-6528/aaa46c

2. **Crystallization of TiO2nanotubes by in situ heating TEM**
   Casu, A., Lamberti, A., Stassi, S., Falqui, A.
   Nanomaterials (2018), 8 (1): 40, DOI: 10.3390/nano8010040

3. **Microcantilever resonator arrays for immunodetection of β-lactoglobulin milk allergen**
   Ricciardi, C., Santoro, K., Stassi, S., Lamberti, C., Giuffrida, M.C., Arlorio, M., Decastelli, L.
   Sensors and Actuators, B: Chemical (2018), 254: 613-617, DOI: 10.1016/j.snb.2017.07.150

4. **Experimental evidence of Fano resonances in nanomechanical resonators**
   Stassi, S., Chiadò, A., Calafiore, G., Palmara, G., Cabrini, S., Ricciardi, C.
   Scientific Reports (2017), 7 (1): 1065, DOI: 10.1038/s41598-017-01147-y

5. **Polymeric 3D Printed Functional Microcantilevers for Biosensing Applications**
   Stassi, S., Fantino, E., Calmo, R., Chiappone, A., Gillono, M., Scaiola, D., Pirri, C.F., Ricciardi, C., Chiadò, A., Roppolo, I.
   ACS Applied Materials and Interfaces (2017), 9 (22): 19193-19201, DOI: 10.1021/acsami.7b04030

6. **Functionalized ZnO nanowires for microcantilever biosensors with enhanced binding capability**
   S. Stassi, A. Chiadò, V. Cauda, G. Palmara, G. Canavese, M. Laurenti, C. Ricciardi
   Analytical and Bioanalytical Chemistry (2017), 409 (10): 2615-2625, DOI: 10.1007/s00216-017-0204-2

7. **Surface Engineering of Nanostructured ZnO Surfaces**
   M. Laurenti, S. Stassi, G. Canavese, V. Cauda
   Advanced Materials Interfaces (2017), 4 (2): 1600758, DOI: 10.1002/admi.201600758

8. **3D printable light-responsive polymers**
   Roppolo, I., Chiappone, A., Angelini, A., Stassi, S., Frascella, F., Pirri, C.F., Ricciardi, C., Descrovi, E.
   Materials Horizons (2017), 4 (3): 396-401, DOI: 10.1039/c7mh00072c

9. **High-Throughput Characterization of Microcantilever Resonator Arrays for Low-Concentration Detection of Small Molecules**
   I. Ferrante, N. Ciprianetti, S. Stassi, K. Santoro, S. Ferrero, L. Scaltrito, C. Ricciardi
   Journal of Microelectromechanical Systems (2017), 26 (1): 246 - 254, DOI: 10.1109/JMEMS.2016.2633315

10. **How Micropatterning and Surface Functionalization Affect the Wetting Behavior of ZnO Nanostructured Surfaces**
    M. Laurenti, A. Verna, M. Fontana, S. Stassi, G. Canavese, S.L. Marasso, V. Cauda
    Advanced Materials Interfaces (2016),3 (13): 1600110, DOI: 10.1002/admi.201600110

11. **A porous nanobranched structure: An effective way to improve piezoelectricity in sputtered ZnO thin films**
    M. Laurenti, G. Canavese, S. Stassi, M. Fontana, M. Castellino, C.F. Pirri, V. Cauda
    RSC Advances (2016), 6 (80): 76996-77004, DOI: 10.1039/c6ra17319e

12. **Surface area enhancement by mesoporous silica deposition on microcantilever sensors for small molecule detection**
    S. Stassi, V. Cauda, S. Fiorilli, C. Ricciardi
    Journal of Materials Chemistry C (2015), 3 (48): 12507-12513, DOI: 10.1039/c5tc02635k

13. **Leveraging ZnO morphologies in piezoelectric composites for mechanical energy harvesting**
    V. Cauda, S. Stassi, A. Lamberti, M. Morello, C.F. Pirri, G. Canavese
    Nano Energy (2015), 18: 212-221, DOI: 10.1016/j.nanoen.2015.10.021

14. **Flexible piezoelectric energy nanogenerator based on ZnO nanotubes hosted in a polycarbonate membrane**
    S. Stassi, V. Cauda, C. Ottone, A. Chiodoni, C.F. Pirri, G. Canavese
    Nano Energy (2015), 13: 474-481, DOI: 10.1016/j.nanoen.2015.03.024

15. **Evaluation of the piezoelectric properties and voltage generation of flexible zinc oxide thin films**
    M. Laurenti, S. Stassi, M. Lorenzoni, M. Fontana, G. Canavese V. Cauda, C.F. Pirri
    Nanotechnology (2015), 26 (21):215704, DOI: 10.1088/0957-4484/26/21/215704

16. **Nanostructured piezoelectric polymers**
    V. Cauda, G. Canavese, S. Stassi
    Journal of Applied Polymer Science (2015), 132 (13):41667, DOI:10.1002/app.41667

17. **Inkjet-printed PEDOT:PSS electrodes on plasma-modified PDMS nanocomposites: quantifying plasma treatment hardness**
    A. Chiolerio, P. Rivolo, S. Porro, S. Stassi, S. Ricciardi, P. Mandracci, G. Canavese, K. Bejtka, C.F. Pirri
    RSC Advances (2014), 4 (93):51477-51485, DOI: 10.1039/c4ra06878e

18. **Impedance spectroscopy analysis of the tunnelling conduction mechanism in piezoresistive composites**
    S. Stassi, A. Sacco, G. Canavese
    J. Phys. D: Appl. Phys. (2014), 47:345306 DOI:10.1088/0022-3727/47/34/345306

19. **Process optimisation of a MEMS based PZT actuated microswitch**
    A. Tommasi, G. Coletta, D. Balma, S.L. Marasso, D. Perrone, G. Canavese, S. Stassi, S. Bianco, M. Cocuzzaa, C.F. Pirri
    Microelectronic Engineering (2014), 119:137–140, DOI: 10.1016/j.mee.2014.04.005

20. **Shape-Controlled Synthesis of Silver Nature-Like Spiky Particles for Piezoresistive Sensor Applications**
    S. Stassi, V. Cauda, G. Canavese, D. Manfredi, A. Chiodoni, C.F. Pirri
    European Journal of Inorganic Chemistry (2014), 16:2711–2719, DOI: 10.1002/ejic.201402036

21. **Properties of ZnO nanorods grown by hydrothermal synthesis on conductive layers**

L.V. Podrezova, V. Cauda, S. Stassi, G. Cicero, Kh.A. Abdullin, B.E. Alpysbaeva
Crystal Research and Technology (2014), 49 (8):599–605, DOI: 10.1002/crat.201300372

22. **Real Time pedobarography analysis by piezoresistive wearable insole**
G. Canavese, S. Stassi, C. Fallauto, S. Corbellini, V. Cauda, M. Di Donato, M. Pirola, D. Demarchi, C.F Pirri
Sensor Letters (2014), 12 (9):1427-1432, DOI: 10.1166/sl.2014.3319

23. **Stretchable and wearable piezoresistive insole for continuous pressure monitoring**
G. Canavese, S. Stassi, C. Fallauto, S. Corbellini, V. Cauda, M. Di Donato, M. Pirola, D. Demarchi, C.F Pirri
Key Engineering Materials (2014), vol. 605: 474-477, DOI: 10.4028/www.scientific.net/KEM.605.474

24. **Flexible Tactile Sensing Based on Piezoresistive Composites: A Review**
S. Stassi, V. Cauda, G. Canavese, C.F. Pirri
Sensors (2014), 14 (3): 5296-5332, DOI:10.3390/s140305296

25. **Comprehensive study of the templating effect on the ZnO nanostructure formation within porous hard membranes**
C. Ottone, K. Bejtka, A. Chiodoni, V.Farias, I. Roppolo, G. Canavese, S. Stassi, V. Cauda
New Journal of Chemistry (2014), in press, DOI: 10.1039/C3NJ01135F

26. **Synthesis of ferroelectric $BaTiO_3$ tube-like arrays by hydrothermal conversion of a vertically aligned TiO_2 nanotube carpet**
A. Lamberti, N. Garino, K. Bejtka, S. Bianco, S. Stassi, A. Chiodoni, G. Canavese, C.F. Pirri, M. Quaglio
New Journal of Chemistry (2014), in press, DOI: 10.1039/C3NJ01138K

27. **Piezoresistive flexible composite for robotic tactile applications**
G. Canavese, S. Stassi, C. Fallauto, S. Corbellini, V. Cauda, V. Camarchia, M. Pirola, C.F. Pirri
Sensors and Actuators A: Physical (2014), 208: 1-9, DOI: 10.1016/j.sna.2013.11.018

28. **Novel spongelike nanostructured ZnO films: Properties and applications**
R. Gazia, G. Canavese, A. Chiodoni, A. Lamberti, S. Stassi, A. Sacco, S. Bianco, A. Virga, E. Tresso, C.F. Pirri
Journal of Alloys and Compounds (2014), 586 (SUPPL. 1): S331-S335, DOI: 10.1016/j.jallcom.2013.01.149

29. **Smart piezoresistive tunnelling composite for flexible robotic sensing skin**
S. Stassi, G. Canavese, F. Cosiansi, R. Gazia, C. Fallauto, S. Corbellini, M. Pirola, M. Cocuzza
Smart Materials and Structures (2013), 22 (12): 125039, DOI: 10.1088/0964-1726/22/12/125039

30. **Length-dependent charge generation from vertical arrays of high-aspect-ratio ZnO nanowires**
V.F. Rivera, F. Auras, P. Motto, S. Stassi, G. Canavese, E. Celasco, T. Bein, B. Onida, V. Cauda
Chemistry – A European Journal (2013), 19 (43):14665-14674, DOI: 10.1002/chem.201204429

31. **Nanoconfinement: an Effective Way to Enhance PVDF Piezoelectric Properties**
V. Cauda, S. Stassi, K. Bejtka, and G. Canavese
ACS Applied Materials and Interfaces (2013), 5 (13): 6430-6437, DOI: 10.1021/am4016878

32. **Photodetection and piezoelectric response from hard and flexible sponge-like ZnO-based structures**
R. Gazia, P. Motto, S. Stassi, A. Sacco, A. Virga, A. Lamberti, G. Canavese
Nano Energy (2013), 2 (6): 1294-1302, DOI: 10.1016/j.nanoen.2013.06.010

33. **Effect of the fabrication method on the functional properties of BaTiO3: PVDF nanocomposites**
A. Chiolerio, M. Lombardi, A. Guerriero, G. Canavese, S. Stassi, R. Gazia, V. Cauda, D. Manfredi, A. Chiodoni, A. Verna, M. Cocuzza, L. Montanaro, C. F. Pirri
Journal of Materials Science (2013), 48 (20): 6943-6951, DOI: 10.1007/s10853-013-7500-9

34. **Different confinements of PVDF-TrFE as functional material of piezoelectric sensor devices**
G. Canavese, S. Stassi, V. Cauda, A. Verna, M. Motto, A. Chiodoni, S. Marasso, D. Demarchi,
IEEE Sensors Journal (2013), 13 (6): 2237-2244, DOI: 10.1109/JSEN.2013.2248143

35. **A Tactile Sensor Device Exploiting the Tunable Sensitivity of Copper-PDMS Piezoresistive Composite**
S. Stassi, G. Canavese, F. Cosiansi, R. Gazia, M. Cocuzza
Procedia Engineering (2012), 47: 659-663, DOI: 10.1016/j.proeng.2012.09.233

36. **Confinement in Oriented Mesopores Induces Piezoelectric Behavior of Polymeric Nanowires**
V. Cauda, B. Torre, A. Falqui, G. Canavese, S. Stassi, T. Bein, and M. Pizzi
Chemistry of Materials (2012), 24 (21), 4215-4221, DOI: 10.1021/cm302594s

37. **Stretchable and conformable metal–polymer piezoresistive hybrid system**
G. Canavese, S. Stassi, M. Stralla, C. Bignardi, C.F. Pirri,
Sensors and Actuators A: Physical (2012), 186: 191-197, DOI: 10.1016/j.sna.2012.01.037

38. **Evaluation of different conductive nanostructured particles as filler in smart piezoresistive composites**
S. Stassi, G. Canavese, V. Cauda, S.L. Marasso, C. F. Pirri,
Nanoscale Research Letters (2012), 7:327, DOI: 10.1186/1556-276X-7-327

39. **Spiky nanostructured metal particles as filler of polymeric composites showing tunable electrical conductivity**
S. Stassi, G. Canavese,
J. Polym. Sci. B Polym. Phys. (2012), 50: 984–992, DOI: 10.1002/polb.23091

40. **Synthesis and Characterization of Gold Nanostars as Filler of Tunneling Conductive Polymer Composites**
S. Stassi, V. Cauda, G. Canavese, D. Manfredi, and C.F. Pirri,
Eur. J. Inorg. Chem. (2012), 16: 2669–2673, DOI: 10.1002/ejic.201101058

41. **Comprehensive Characterization of Large Piezoresistive Variation of Ni-PDMS Composite**
G. Canavese, M. Lombardi, S. Stassi, C. F. Pirri,
Applied Mechanics And Materials (2012), vol. 110-116 , 1336-1344, DOI: 10.4028/www.scientific.net/AMM.110-116.1336

42. **Coffee-Ring Effect-Based Three Dimensional Patterning of Micro/Nanoparticle Assembly with a Single Droplet**
S. Choi, S. Stassi, A.P. Pisano, T.I. Zohdi,
Langmuir (2010), 26 (14), 11690-11698, DOI: 10.1021/la101110t

CONFERENCE PAPERS:

1. **Low-cost wearable measurement system for continuous real-time pedobarography**
S. Corbellini C. Ramella, C. Fallauto, M. Pirola, S. Stassi, G. Canavese
2015 IEEE International Symposium on Medical Measurements and Applications, MeMeA 2015 - Proceedings, 7145281, pp. 639-64413, DOI: 10.1109/MeMeA.2015.7145281

2. **Wearable and flexible pedobarographic insole for continuous pressure monitoring**
S. Stassi, G. Canavese, V. Cauda, C. Fallauto, S. Corbellini, P. Motto, D. Demarchi, C.F. Pirri
Sensors, 2013 IEEE , pp.1-4, 3-6 Nov. 2013, DOI: 10.1109/ICSENS.2013.6688460

3. **Functionalized single ZnO-metal junction as a pH sensor**
P. Motto, V. Cauda, S. Stassi, G. Canavese, D. Demarchi,
Sensors, 2013 IEEE , pp.1-4, 3-6 Nov. 2013, DOI: 10.1109/ICSENS.2013.6688513

4. **A Low complexity wireless microbial fuel cell monitor using piezoresistive sensors and impulse-radio ultra-wide-band**
M. Crepaldi ; A. Chiolerio ; T. Tommasi ; D. Hidalgo ; G. Canavese ; S. Stassi ; D. Demarchi ; F. C. Pirri
Proc. SPIE 8763, Smart Sensors, Actuators, and MEMS VI, 876311 (May 17, 2013); DOI:10.1117/12.2017553

5. **Different scale confinements of PVDF-TrFE as functional material of piezoelectric sensor devices**
G. Canavese, S. Stassi, V. Cauda, A. Verna, A. Chiodoni, S. Marasso, M. Cocuzza,
Sensors, 2012 IEEE , pp.1-4, 28-31 Oct. 2012, DOI: 10.1109/ICSENS.2012.6411330

6. **An innovative copper-PDMS piezoresistive composite for flexible tactile sensor**
S. Stassi, G. Canavese, F. Cosiansi, M. Cocuzza
Proceeding of the 15th European Conference on Composite Materials, Venice(Italy), ISBN: 978-88-88785-33-2.

7. **Confined polymeric nanowires into porous alumina matrix as composite piezoelectric membrane for sensing applications**
V. Cauda, S. Stassi, G. Canavese, I. Aulika
Proceeding of the 15th European Conference on Composite Materials, Venice(Italy), ISBN: 978-88-88785-33-2.

8. **An exhaustive characterization of quantum tunnelling conductive composite,**
G. Canavese, S. Stassi, M. Lombardi, A. Guerriero, C. Fabrizio Pirri,
18th International Conference on Composites Materials, ICCM 2011

9. **Giant Piezoresistive Variation of Metal Particles Dispersed in PDMS Matrix,**
S. Stassi, G. Canavese, M. Lombardi, A. Guerriero, C. Fabrizio Pirri,
Mrs Online Proceedings Library, vol 1299 (2011), DOI: 10.1557/opl.2011.532

BOOK CHAPTERS:

1. **ZnO nanowires : synthesis approaches and electrical properties**
   C. Ottone, M. Laurenti, P. Motto, S. Stassi, D. Demarchi, V. Cauda,
   Nanowires: Synthesis, Electrical Properties and Uses in Biological Systems, pp: 1-58 (2014), Nova Science Publishers, ISBN: 978-1-63117-855-9

2. **Nanosized gold and silver spherical, spiky and multi-branched particles**
   S. Stassi, V. Cauda, G. Canavese, D. Manfredi, I. Roppolo, P. Martino, A. Chiolerio
   Handbook of Nanomaterials Properties, pp: 179-212 (2014), Springer-Verlag, ISBN: 978-3-642-31106-2

3. **Nanostructured ZnO materials: synthesis, properties and applications**
   V. Cauda, R. Gazia, S. Porro, S. Stassi, G. Canavese, I. Roppolo, A. Chiolerio
   Handbook of Nanomaterials Properties, pp. 137-177 (2014), Springer, ISBN: 978-3-642-31106-2

CONFERENCE PARTECIPATION AND ABSTRACTS:

1. **1st Workshop on NanoFluidics and Nanomechanics (NFNM Workshop), 14-15 Set. 2017, Torino, Italia.**
   Fano-like resonances in nanomechanical resonators
   Oral

2. **FNS 2017- Frontiers of Nanomechanical Systems, 5-10 Feb. 2017, La Thuile, Italy**
   Fano resonances in nanomechanical oscillators
   Poster

3. **MicroTAS 2016, 9-13 Oct. 2016, Dublin, Ireland**
   Synthesis of ZnO nanowires on microcantilever arrays for high sensitivity biosensors
   Poster

4. **Nanoinnovation 2016, 20-23 Sept. 2016, Rome, Italy**
   3D micro and nanostructuration of chemical and biological sensors
   Invited Oral

5. **Measuring by Light 2015, 18-19 Nov. 2015, Rijswijk, The Netherlands**
   Characterization of resonating micro and nanosensors for single particle detection
   Oral

6. **NMC 2014 - 11th Nanomechanical Sensing Workshop, 30 Apr.-2 May 2014, Madrid, Spain**
   Inorganic nanostructure growth on microcantilever mass detectors for sensing area enhancing
   Oral

7. **StSPM'13 - Workshop Science through Scanning Probe Microscopy 2013, 12-12 Dec. 2013, Bologna, Italy**
   Inorganic nanostructure growth on microcantilever mass detectors for sensing area enhancing
   Oral

8. **ACIN 2013 - International Conference on Advanced Complex Inorganic Nanomaterials, 15–19 July, 2011, Namur, Belgium**
   Piezoelectric Evaluation of Ultra-Thin Nano-Confined Polymeric Nanowires
   Oral
   High Aspect-Ratio Vertically Aligned ZnO Nanowires: Electric and Piezoelectric Evaluation for Energy Nanogenerators
   Poster
   A Deep Investigation on the Syntheses to Obtain Spiky Silver Nanostars for Piezoresistive Composite Application
   Poster

9. **Eurosensors 2012 – The 26th European Conference on Solid-State Transducers, 9-12 Sept. 2012, Krakóv, Poland**
   A Tactile Sensor Device Exploiting the Tunable Sensitivity of Copper-PDMS Piezoresistive Composite,
   Poster

10. **ECCM 15 – European Conference on Composite Material, 24–28 June 2012, Venice, Italy**
    An innovative copper-PDMS piezoresistive composite for flexible tactile sensor,
    Oral

11. **TNT 2011- Trends in nanotechnology, 21–25 Nov. 2011, Tenerife, Spain**
    Evaluation of different conductive nanostructured particles as filler in smart piezoresistive composites,

Poster

12. **ACIN 2011 - International Conference on Advanced Complex Inorganic Nanomaterials, 15–19 July, 2011, Namur, Belgium**
    Synthesis and characterization of gold nanostar for preparation of tunnelling conductive polymer-metal composites
    Oral

13. **2010 MRS Fall Meeting & Exhibit, 29 Nov.–3 Dec. 2010, Boston, MA, USA**
    Giant Piezoresistive Variation of Metal Particles Dispersed in PDMS Matrix,
    Poster

Collaboration with Italian and international universities and research centers

- **Istituto Italiano di Tecnologia (IIT) – Genova, Italy**
  Collaboration with Dr. Bruno Torre and Dr. Andrea Falqui of the main center of IIT for the morphological and piezoelectric characterization of piezoelectric polymeric nanowires confined in oriented mesoporous structures.

- **University of Munich – Munich, Germany**
  Collaboration with Prof. Thomas Bein and his research group for the synthesis of both polymeric and inorganic piezoelectric nanowires confined in mesoporous structures.

- **University of California at Berkeley – Berkeley, CA, USA**
  Collaboration with Prof. Albert P. Pisano and his research group for the fabrication of metallic nanoparticles for low temperature fabrication of metallic interconnections

- **Lawrence Berkeley National Laboratory – Berkeley, CA, USA**
  Collaboration with Dr. Stefano Cabrini for the fabrication of micro- and nano-mechanical resonant structures

Supervision of students

Assistant supervisor Master thesis:

- **Matteo Stralla** (Mechanical Engineering - Prof. Cristina Bignardi)
  Development of a piezoresistive material based on elastomeric matrix filled with conductive microparticles for the realization of a tactile sensor

- **Ferdinando Cosiansi** (Electronic Engineering - Prof. Candido Fabrizio Pirri)
  Development of a tactile sensor array based on piezoresistive composite materials

Teaching activities

- **2013: Support teaching in the lectures of 'Introduzione alle Nanotecnologie – Introduction to nanotechnology' for the course of Physical Engineering and Electronic Engineering**
  The activity was focused on the presentation and assistance of laboratory experimental activities on the fabrication and characterization of a tactile device.

- **2010: Support teaching in the lectures of 'Physics II' for the course of Automotive Engineering (Englis course)**
  The activity was focused on the proposal of exercise on electromagnetism and support for the solution in the class.