Prof. Dr. Gianaurelio Cuniberti — one-page résumé, May 25, 2022

personal

date of birth: April 28, 1970
citizenships: Italian, German
marital status: married, three daughters

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career

since 09.2019:	Guest Professor of Materials Science at Shanghai Jiao Tong University, China
since 01.2018:	Courtesy Appointment to the TU Dresden – King's College London *transcampus*
since 01.2013:	Courtesy Appointment to the Physics Department at TU Dresden, Germany
since 11.2011:	Adjunct Professor of Chemistry at the University of Alabama, USA
since 11.2009:	Honorary Professor of Electronic Engineering at POSTECH, South Korea
since 10.2007:	Chair "Materials Science and Nanotechnology" (full professor, W3), School of Engineering Sciences (Department of Materials Science) at TU Dresden
2003-2007:	Head of the VW-Foundation independent research group *Molecular Computing*, Department of Physics, University of Regensburg, Germany
2001-2002:	Schloeßmann award fellow, Max Planck Institute PKS, Dresden, Germany
1998–2000:	Guest scientist, Max Planck Institute PKS, Dresden, Germany
1997–1998:	Postdoctoral Research Associate, Università di Genova, Italy

education

grad:	1997 Ph.D. in Physics, Università di Genova, Italy
undergrad:	1994 Laurea (M.Sc.) in Physics, Università di Genova, Italy

publications & presentations

452	works in international journals and refereed volumes including *2* book (edited for Springer Lecture Notes in Physics), *6* reviews and *46* letters (including Nature Journals Papers), *243* works as first or last author
10	patents
499	abstracts in conferences, workshops, or sci-schools (*91* as invited talks)
116	invited talks at universities, research centers including invited public talks

keywords

materials modeling and transport phenomena,
bottom-up assembly and molecular biosensing, molecular (bio)electronics
heat and charge migration from mesoscopic to molecular systems,

grants & awards

since 2003:	more than €30m third party grants among others from the European Union, the German Research Foundation (DFG), the German Ministry of Education and Research (BMBF), the Volkswagen Foundation.
2003-2007:	VolkswagenStiftung Research Group Individual Grant
2001-2003:	Schloeßmann Award Fellowship
1984-1993:	Various talent scholarships

author IDs

Google Scholar: https://scholar.google.com/citations?user=ru9OwLUAAAAJ
ORCID: https://orcid.org/0000-0002-6574-7848
Scopus: https://scopus.com/authid/detail.uri?authorId=56273831400
ResearcherID: https://researcherid.com/rid/B-7192-2008

selected recent publications (out of *452*)

- E. Baek, N. R. Das, C. V. Cannistraci, T. Rim, G. S. C. Bermudez, K. Nych, H. Cho, K. Kim, C. K. Baek, D. Makarov, R. Tetzlaff, L. Chua, L. Baraban, and G. Cuniberti,
  Intrinsic plasticity of silicon nanowire neurotransistors for dynamic memory and learning functions,
  Nature Electronics **3**, 398-408 (2020)
  doi: 10.1038/s41928-020-0412-1

- T. Zhang, Z. Liao, L. M. Sandonas, A. Dianat, X. Liu, P. Xiao, I. Amin, R. Gutierrez, T. Chen, E. Zschech, G. Cuniberti, and R. Jordan,
  Polymerization driven monomer passage through monolayer chemical vapour deposition graphene,
  Nature Communications **9**, 4051 (2018)
  doi: 10.1038/s41467-018-06599-y

- C. Gaul, S. Hutsch, M. Schwarze, K. S. Schellhammer, F. Bussolotti, S. Kera, G. Cuniberti, K. Leo, and F. Ortmann,
  Insight into doping efficiency of organic semiconductors from the analysis of the density of states in n-doped C_{60} and ZnPc,
  Nature Materials **17** 439 (2018)
  doi: 10.1038/s41563-018-0030-8

- J. Schütt, B. Ibarlucea, R. Illing, F. Zörgiebel, S. Pregl, D. Nozaki, W. M. Weber, T. Mikolajick, L. Baraban, and G. Cuniberti,
  Compact nanowire sensors probe microdroplets,
  Nano Letters **16**, 4991 (2016)
  doi: 10.1021/acs.nanolett.6b01707

- H. Sevincli, C. Sevik, T. Cain, and G. Cuniberti,
  A bottom-up route to enhance thermoelectric figures of merit in graphene nanoribbons,
  Nature Scientific Reports **3**, 1228 (2013)
  doi: 10.1038/srep01228

- M. H. Rümmeli, C. G. Rocha, F. Ortmann, I. Ibrahim, H. Sevincli, F. Börrnert, J. Kunstmann, A. Bachmatiuk, M. Pötschke, M. Shiraishi, M. Meyyappan, B. Büchner, S. Roche, and G. Cuniberti,
  Graphene: Piecing it Together,
  Advanced Materials **23**, 4471 (2011)
  e-print: 1108.0771, doi: 10.1002/adma.201101855

- R. Gutiérrez, R. A. Caetano, B. P. Woiczikowski, T. Kubar, M. Elstner, and G. Cuniberti,
  Charge transport through bio-molecular wires in a solvent: Bridging molecular dynamics and model Hamiltonian approaches,
  Physical Review Letters **102**, 208102 (2009)
  e-print: 0901.3432, doi: 10.1103/PhysRevLett.102.208102

- E. Shapir, H. Cohen, A. Calzolari, C. Cavazzoni, D. A. Ryndyk, G. Cuniberti, A. Kotlyar, R. Di Felice, and D. Porath,
  Electronic structure of single DNA molecules resolved by transverse scanning tunneling spectroscopy,
  Nature Materials **7**, 68 (2008)
  doi: 10.1038/nmat2060

- M. Del Valle, R. Gutiérrez, C. Tejedor, and G. Cuniberti,
  Tuning the conductance of a molecular switch,
  Nature Nanotechnology **2**, 176 (2007)
  e-print: 0705.0527, doi: 10.1038/nnano.2007.38

- N. Nemec, D. Tománek, and G. Cuniberti,
  Contact dependence of carrier injection in carbon nanotubes: An ab initio study,
  Physical Review Letters **96**, 076802 (2006)
  e-print: cond-mat/0512396, doi: 10.1103/PhysRevLett.96.076802

- G. Cuniberti, G. Fagas, and K. Richter (Eds.),
  Introducing Molecular Electronics (book),
  Lecture Notes in Physics **680** (Springer, Berlin and Heidelberg, 2005)
  doi: 10.1007/b101525, ISBN: 3540279946