# Gabriele Penazzi

## Personal information


Address 28211 Bremen, Germany

Phone +49 (0)151 19650383

Email g.penazzi@gmail.com


## Experience

2010–Present **Research Scientist**, *Bremen Center for Computational Material Science, Physics Department, University of Bremen*, Germany.

- Research in the field of atomistic modelling of charge transport in nanostructured materials
- Lecturer in the class "Electronic Transport at Nanoscale"
- DFTB+ (www.dftb-plus.info) developer and trainer
- Co-author of awarded grant proposals
- Co-organizer of international conferences
- Tutoring of Bachelor students

2009–2010 **Research Assistant**, *Department of Electronic Engineering, University of Rome Tor Vergata*, Italy.

- Research in the field of multiscale atomistic/finite element modelling of electronic devices with focus on III-V alloys
- Teaching assistant in the classes "Optoelectronics" and "Nanoelectronics"
- Tutoring of Bachelor and Master students.

2006–Present **Founder member**, *Tiberlab S.r.l.*, Italy.

- TiberCAD TCAD (www.tibercad.org) developer and trainer

## Education

2006–2010 **PhD in Learning and Sensing Systems Engineering**, *Department of Electronic Engineering, University of Rome Tor Vergata*.
Thesis Title: *Development of an atomistic/continuous simulation tool for nanoelectronic devices*

2003–2006 **MSc in Electronic Engineering**, *Department of Electronic Engineering, University of Rome Tor Vergata*, *110/110 cum laude*.
Thesis title: *Development of a quantum transport simulator*

2000–2003 **Bachelor in Electronic Engineering**, *Department of Electronic Engineering, University of Rome Tor Vergata*, *110/110 cum laude*.
Thesis title: *Experimental analysis of optical properties of Gallium Nitride*

## Professional interests

- Scientific Programming
- Optoelectronic Devices Physics and Modelling
- Ab-initio modelling
- Large Scale Parallel Programming

## Technical skills

- C/C++, Python, Fortran 95/2003, Matlab scientific development on Linux platform (medium/large scale projects)
- OpenMP and MPI for HPC applications
- Atomistic modelling: density functional (Quantum Espresso, Siesta, DFTB), molecular dynamics (LAMMPS, Gromacs)
- Finite Element modelling (gmsh, libmesh)
- Version control systems (svn, git), documentation generators (Sphynx, Doxygen)
- Microsoft Office, Latex

## Languages

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|---|---|
| Italian | **Mother tongue** |
| English | **Fluent** |
| German | **Intermediate - B2** |