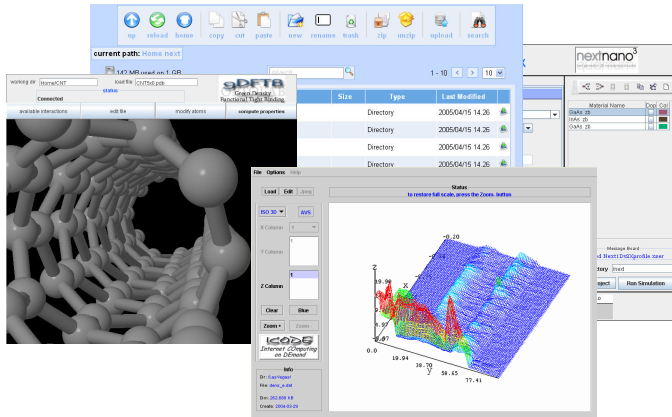


Remote Computing Platforms

TIBERWEB

TiberWEB is a computation-on-demand portal



- Secure remote access
- Remote computing
- Secure file storage
- Platform independent
- Easy to learn environment

Services

- Development of GUI interfaces
- Development of systems for e-learning and teaching

TIBERLAB

TiberLAB office is located at the University of Rome "Tor Vergata"



Department of Electronic Engineering
University of Rome Tor Vergata
00133 ROMA
Via del Politecnico, 1

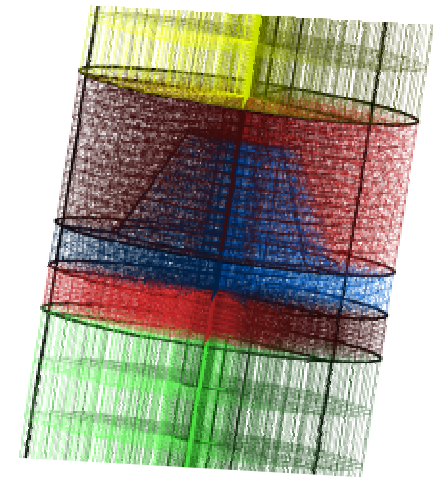
tel.: +39 06 7259 7781
fax: +39 06 2020519

<http://www.tiberlab.com>
info@tiberlab.com



TIBERLAB s.r.l.

Software for the Innovation Technology



A University of Rome 'Tor Vergata' Spin Off

TIBERLAB

Software for the Innovation Technology

The University of "Tor Vergata" spin off TiberLAB has been funded in 2008 based on a long-standing experience of 20 years of device simulations and development of simulating software within the QLAB research group.

Products

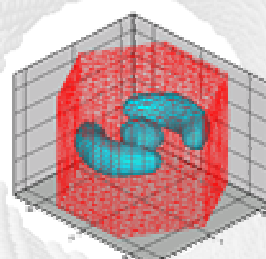
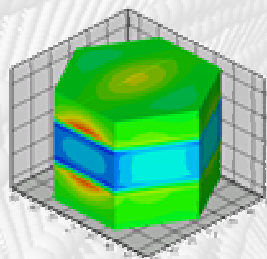
- **TIBER CAD** in-house developed multiscale device simulation software.
- Development of custom applications
- Remote computing platforms
- Software off-shoring
- Hardware/software integration
- Consultancy services

Multiscale Simulator for Electronics Devices

TIBER CAD

TiberCAD is our in-house developed software for Multiscale and Multiphysics

Modern devices impose new challenges due to the wide range of time and length scales involved



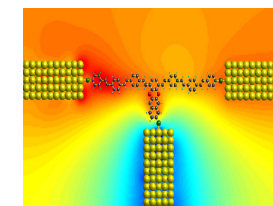
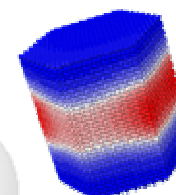
Multiscale / Multiphysics

- Classical and quantum transport in nanodevices
- Optoelectronic properties of nanostructures
- Atomistic embedding of active regions
- Cross-scale electro-thermal calculations

Based on the libMesh FEM library
Efficient linear solvers (PETSc, SLEPc)

Physical Models

- 1D/2D/3D simulations
- Drift-Diffusion models and Thermal Management
- Strain with pyro- and piezo- electric fields
- Quantum physics: effective mass and k-p theory
- Atomistic descriptions: empirical tight-binding models



Applications

Electronic device analysis (HEMT, MOSFET, HBT etc.)
Nanoelectronic devices (nanoMOSFET, CNTFET, nanowire etc.)
Molecular and Organic electronics devices (OTFT, OLED, OPV)
Optoelectronic Devices (LASER, LED, Photodetectors)
Solar Cells (silicon based, CdTe, CIGS, DSSC, organic)

User Interfaces

Define arbitrary geometries
Assign material names
Choose crystal structures
Define meshes
Handle atomistic structures
Access material and physics databases
Interfaces with Synopsys, Silvaco TCADs

