

Matthias Auf der Maur holds a PhD in Electronic Engineering from the University of Rome Tor Vergata. After his PhD he was a PostDoc with University of Rome Tor Vergata, where he was appointed as associate Professor in 2019. Since 2007 one of his main research topics has been the simulation of III-nitride devices, in particular AlGaIn/GaN HEMTs and InGaIn/GaN LEDs, studying strain, electronic transport, thermal effects, their coupling, and optical properties. He is since the main developer of the multiscale/multiphysics device simulation software tiberCAD. His current research activity is on optical and electrical modelling of nitride LEDs and solar cells and modelling of organic and perovskite based solar cells and detectors. In his lecture he will introduce basic concepts and examples of multiscale device simulation, coupling atomistic and continuum models.