## Session 23, Mathematical aspects of semiconductor modeling and nano-technology

Thursday 19, Room 312

11:30–12:00 **Quantum collisons in the Boltzmann equation via local extensions to Fermi's golden rule**
Christian Ringhofer

12:00–12:30 **A WENO solver for the transients of Boltzmann-Poisson system**
Chi-Wang Shu

12:30–13:00 **A direct solver for 2D non-stationary Boltzmann-Poisson systems for semiconductor devices**
Armando Majorana

15:30–16:00 **The Boltzmann-Poisson system in semiconductors:Numerical simulations for Silicon and GaAs devices**
María José Cáceres Granados

16:00–16:30 **Low-field limit for a nonlinear discrete drift-diffusion model**
Óscar Sánchez Romero

16:30–17:00 **Non-linear transport in semiconductor multiquantum Wells doped with magnetic impurities**
Gloria Platero

17:30–18:00 **Stochastic and deterministic switching dynamics in semiconductor superlattices**
Stephen Teitsworth

18:00–18:30 **The half space problem for kinetic relaxation under a strong force field scaling**
Irene Martinez Gamba

Saturday 21, Room 312

09:30–10:00 **Recent progress in quantum hydrodynamic models for semiconductors**
Peter Markowich

10:00–10:30 **Quantum device simulations by Wigner equations**
Jing Shi

10:30–11:00 **New advances in numerical micromagnetics simulations**
Carlos Javier García Cervera