PROGRAM OF THE MULTI-SCALE MODELLING SUMMER SCHOOL

September 25-28, 2018

Venue: **Sala de Graus**, Campus Catalunya**, Universitat Rovira i Virgili, Tarragona, Catalonia (Spain)**
Chair: **Benjamin Iñiguez (Universitat Rovira i Virgili)**
Co-Chair: **Yvan Bonnassieux (Ecole Politechnique, France)**

SPONSORS and COLABORATORS:
Department of Electronic, Electrical and Automatic Control Engineering, Universitat Rovira i Virgili
Fundació Universitat Rovira i Virgili. Oficina de Congressos
SINANO Institute
"DOMINO" H2020 RISE Project
IEEE Electron Devices Society (EDS)

Tuesday, September 25, 2018

8:00	Registration
	Opening Session
8:30	*Benjamin Iñiguez (Universitat Rovira i Virgili)*

	IEEE EDS MINI-COLLOQUIUM ON SEMICONDUCTOR DEVICE MODELLING
8:55	**"Characterization Techniques for Ultrathin Materials and Devices".** *Sorin Cristoloveanu (MINATEC, France)*
10:05	**"Compact Modeling of Organic Thin Film Transistors"** *Jamal Deen (McMaster University, Canada)*
11:15	Coffee Break
11:40	**"Multiscale Reliability Modeling"** *Tibor Grasser (TU-Wien, Austria)*
12:50	**"FOSS TCAD/EDA Tools for Compact Modelling"** *Wladek Grabinski (GMC, Switzerland)*
14:00	Lunch

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15:15	**"Monte Carlo simulation of emerging Si devices"** *Francisco Gámiz (University of Granada, Spain)*
16:25	**"Monte Carlo simulation of THz nanodevices based on III-V semiconductors"** *Javier Mateos (University of Salamanca, Spain)*
20:00	Welcome Reception

Wednesday, September 26, 2018

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9:00	**"Steep-slope devices: prospects and challenges"** *Elena Gnani (University of Bologna)*
10:10	**"Physics of novel devices for quantum information science"** *Thierry Ferrus et al. (Hitachi Cambridge Laboratory, UK)*
11:20	Coffee break
11:30	**"Spiking Neural Circuits and Systems"** *François Danneville (IEMN, France)*
12:50	**"Time Dependent Variability in CMOS devices: characterization and compact modelling"** *Montserrat Nafria (Autonomous University of Barcelona, Spain)*
14:00	Lunch
15:15	**"Atomic-scale modelling of semiconductor technology"** *Kurt Stokbro (Synopsis QuantumWise, Denmark)*
16:25	**"Nanostructuring and modeling of polymer solar cells"** *Lluís F. Marsal (Universitat Rovira i Virgili, Spain)*

Thursday, June 27, 2018

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9:00	**"Complex structure deformation simulation in TCAD for flexible electronics"** Ahmed Nejim (Silvaco Europe Ltd., UK)
10:10	**"Mathematical and Semi-physical modeling for emerging device tecnologies & needs"** *Firas Mohamed. (Silvaco France, France)*
11:20	Coffee break
11:30	**"ASM GaN: A new industry standard compact model for GaN RF and Power Devices"** *Sourabh Khandelwal (Macquarie University, Australia)*
12:50	**"Electrical characterization of low frequency noise"** *Thomas Gneiting (AdMOS GmbH, Germany)*
14:00	Lunch
15:15	**"Compact modeling of memristors"** *Rodrigo Picos (Universitat de les Illes Balears, Spain)*
16:25	**"Effective use of contact effects in high-gain, power-efficient thin-film transistors"** *Radu Sporea (University of Surrey, UK)*
20:30	Gala Dinner

Friday, September 28 2018

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9:00	**“Current status and trends in RF SOI material and devices”** *Jean-Pierre Raskin (Université catholique de Louvain, Belgium)*
10:10	**"Spice model of organic Thin film transistor with gaussian density of states”"** *Yvan Bonnassieux. (Ecole Polytechnique, France)*
11:20	Coffee break
11:30	**“Mechanical Deformation-Aware Compact Modeling for Flexible Electronics”** *Slobodan Mijalkovic(Silvaco Europe Ltd., UK)*
12:50	**Modeling of devices and circuits for analog machine learning”** *Giuseppe Iannaccone (University of Pisa, Italy)*
14:00	Lunch
15:15	**“Parameter extraction and modelling of Amorphous Oxide TFTs”** *Benjamin Iñiguez (Universitat Rovira i Virgili, Spain)*
16:25	Closing Session