Programme for the First International Symposium on SiC Spintronics
Vadstena, Sweden 15-17 June 2015,
Symposium will be held in Klosterhotellet, Vadstena

Monday, June 15

8:50- 9:00 Welcome Jörg Wrachtrup, Erik Janzén

Session I: Materials growth
9.00-9.30: SiC bulk growth: an overview, Alex Ellison, Norstel AB
9.30-10.00: SiC fast epi for spintronics, Jawad Ul Hassan, LiU
10.00-10.30: Improvement of silicon carbide (4H-SiC) material quality, Birgit Kallinger
10.30-11.00: Coffee break

Session II: SiC defects: an Overview
11.00-11.30: SiC Quantum Spintronics: the quest for the optimum material, Jörg Wrachtrup, Stuttgart
11.30-12.00: EPR centers in SiC: an overview, Nguyen T. Son, LiU
12.00-12.30: Optical centers in SiC: an overview, Andreas Gällström, Rowaco
12.30-13.30: Lunch

Session III: Single photons, single spins and spin ensembles I
13.30-14.00: Room temperature single photon source in silicon carbide, Stefania Castelletto
14.00-14.30: Single-photon emitting diode in silicon carbide, Brett C. Johnson
14.30-15.00: Coherence and control of spins in low-dimensional solid state systems, Helena Knowles
15.00-15.30: Coffee break

Session IV: Defects I
15.30-16.00: Spin physics of vacancy-related defects in silicon carbide, Michel Bockstedte
16.00-16.30: Electron Nuclear Double Resonance study of the silicon vacancy related centres in Silicon Carbide, Victor A. Soltamov
16.30-17.00: Carbon-antisite carbon-vacancy pair in SiC revisited: Optical properties of the neutral and positive charge states, Ivan G. Ivanov
17.00-17.30: What help can we get from theory to understand Spintronics defects in SiC? (Tentative title), Adam Gali
19.00: Dinner
21.00 Guided evening tour at Vadstena Castle
Tuesday, June 16

Session V: Photonics and defects
9.00-9.30: Quantum and nonlinear photonics in silicon carbide, Marina Radulaski
9.30-10.00: SiC photonic crystal nanocavities, Bong-Shik Song
10.00-10.30: Paramagnetic color centers in SiC for spintronics and imaging, Norikazu Mizuochi
10.30-11.00: Coffee break

Session VI: Sensing
11.00-11.30: High precision angle-resolved magnetometry with uniaxial quantum centers in silicon carbide, Georgy V. Astakhov
11.30-12.00: Nano-crystalline emitters and spin defect engineering in silicon carbide, Vladimir Dyakonov
12.00-12.30: Towards the ideal in vivo biomarker using SiC QDots, Jean Marie Bluet
12.30-13.30: Lunch

13.30-15.00: Guided historical tour around the Symposium premises
15.00-15.30: Coffee break

Session VII: Single photons, single spins and spin ensembles II
15.30-16.00: Coherent control of single spins in silicon carbide at room temperature, Sang-Yun Lee
16.00-16.30: All-optical coherent population trapping with divacancy spin ensembles in silicon carbide, Caspar H. van der Wal
16.30-17.00: Optical bleaching of divacancies in silicon carbide, Olger V. Zwier
17.00-17.30: SiC epitaxial growth using standard chemistry (Tentative title), Tsunenobu Kimoto

19.00: Dinner

Informal discussions with refreshments after the dinner
**Wednesday, June 17**

**Session VIII: Defects II**

9.00-9.30: Control of Carbon Vacancy Defects in SiC, Tsunenobu Kimoto

9.30-10.00: Electrical characteristics of HPSI SiC substrates annealed at high temperatures, Naoya Iwamoto

10.00-10.30: Theoretical model of the dynamic spin polarization of nuclei coupled to paramagnetic point defects: application to nitrogen-vacancy center in diamond and divacancy in SiC, Viktor Ivády

10.30-11.00: Coffee break

**Session IX: Defects III**

11.00-11.30: Electrical detection of magnetic resonance in Si and SiC, Martin S. Brandt

11.30-12.00: Electrically Detected Magnetic Resonance in 4-H SiC Transistors, Pat M. Lenahan

12.00-12.30: On the Relationship Between Near Zero-Zero Field Magnetoresistance in SiC Devices and Electrically Detected Magnetic Resonance, Pat M. Lenahan

12.30-13.30: Lunch

14.30  Bus departure to Linköping

**Posters shown during the whole symposium**

Coherent control of single spins in silicon carbide at room temperature, Matthias Widmann

Recent progress in SiC-studies at the University of Stuttgart, Matthias Niethammer