

## Scientific programme

International Workshop TRR24 "Physics of Complex Plasmas",  
Hotel Seminaris, Potsdam, September 26 – 28, 2011

### Monday, September 26, 2011

14:00 – 14:10 J. Meichsner (Opening)

14:10 – 14:55 M. Mikikian  
"Dusty (Complex) plasmas as highly unstable media"

14:55 – 15:40 M. Rosenberg  
"Collective processes in magnetized dusty plasmas"

15:40 – 16:00 **Coffee Break**

16:00 – 16:20 P. Ludwig  
"Strongly correlated dust dynamics including wake effects",

16:20 – 16:40 J. Carstensen  
"Wakefield effects in clusters"

16:40 – 17:05 H. Kaehlert  
"Theory of strongly coupled plasmas in traps"

17:05 – 17:25 T. Reichstein  
"Dust confinement in magnetic fields"

17:25 – 17:45 **Coffee Break**

17:45 – 18:30 H. Löwen  
"Charged colloids and complex plasmas: similarities and complementarities"

18:30 – 18:50 T. Ott  
"Transport and oscillation spectra of strongly correlated plasmas"

18:50– 19:10 T. Miksch  
"Phase transitions in finite Yukawa Systems"

19:30 **Dinner**

### Tuesday, September 27, 2011

09:00 – 09:45 D. B. Go  
"Breakdown in microscale electrode gaps: The role of ion-enhanced field emission in the modified Paschen's curve"

09:45 – 10:30 G. Dilecce  
"Spectroscopic diagnostics of dielectric barrier discharges"

10:30 – 10:50 **Coffee break**

10:50 – 11:35 L. Stollenwerk  
"Self-organised lateral structures in DBD at elevated pressure"

11:35 – 11:55 M. Bogaczyk  
"Evolution of surface charges in the dielectric barrier discharge"

**11:55 – 12:15** S. Nemschok  
"Density of metastable  $N_2(A^3\Sigma_u^+)$  molecules in the dielectric barrier discharge"

**12:30**            **Lunch**

**14:30 – 15:15** I. Kaganovich

"Sheaths in weakly collisional plasmas and the role of secondary electron emission"

**15:15 – 15:35** R. L. Heinisch

"Electron surface layers at dielectric plasma walls"

**16:35 – 16:55** F. X. Bronold

"Secondary electrons due to de-excitation of molecules at plasma walls"

**16:55 – 16:15** **Coffee break**

**16:15 – 17:00** D. O'Connell

"Plasma dynamics in atmospheric and low pressure plasmas"

**17:00 – 17:20** C Küllig

"Electron and negative ion dynamics in electronegative rf plasmas"

**17:20 – 17:40** R. Foest

"Miniaturized non-thermal plasma jet at atmospheric pressure: Self-organization and film deposition"

**17:40 – 18:00** M. Becker

"Hydrodynamic modeling of microdischarges in asymmetric barrier discharges"

**19:00**            **Dinner**

## **Wednesday, September 28, 2011**

**09:00 – 09:45** M. Sankaran

"Microscale, atmospheric-pressure plasmas:  
A platform for nanomaterials synthesis at different length scales"

**09:45 – 10:30** J. Benedikt

"Formation of nanoparticles in plasmas with hydrocarbon gases"

**10:30 – 10:50** **Coffee break**

**10:50 – 11:10** F. Faupel/T. Strunskus

"Preparation of nanocomposite films by cluster beam deposition and plasma polymerization"

**11:10 – 11:30** R. Hippler

"Plasma-assisted deposition of size-controlled nano-size particles on surfaces"

**11:30 – 11:50** H. Kersten

"Microparticles as non-conventional diagnostics tool"

**11:50 – 12:10** S. Bornholdt

"Calorimetric probes for the characterization of plasma processes"

**12:30**            **Lunch**

Afterwards meeting of principal investigators

Additionally:

## **Poster session on Tuesday, September 27, 2011**

(Poster in A0 size, portrait format)