

Ad hoc Workshop on Magnetized Dusty Plasmas

October 19 – 21, 2009
Auburn University, Auburn, Alabama

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Workshop Objectives

- Status of the magnetized dusty plasma project:
 - Project history
 - Review past projects
 - Community participation

- Technical discussions:
 - Detailed discussion of physics objectives
 - ✓ Physics questions
 - ✓ Relevance to dusty plasma community
 - ✓ Relevance to other research communities
 - Current status of project development
 - ✓ Technical issues addressed to date
 - ✓ Outstanding technical issues

Workshop Objectives

- General outcomes:
 - Well-defined (prioritized?) list of physics objectives
 - Prioritized list of near-term / long-term technical issues
 - Preliminary plan for engaging funding agencies

- Specific outcomes:
 - Documents summarizing workshop discussions (bullets + paragraphs of texts)

 - Audiences: NSF program officers (3 – 5 pages)
University administrators (1 – 2 pages)

 - Sections:
 - ✓ Introduction (Bob)
 - ✓ Physics motivation and goals (Scott/Marlene)
 - ✓ Community involvement (Truell/Andrew)
 - ✓ Technical status (Jeremiah/Uwe)

Agenda – Monday, October 19

- 8:30 am Welcome
- 8:45 am Session 1: Project overview
 - Project history and status (E. Thomas)
 - Review of previous studies
 - Conditions for magnetized dust (R. Merlino)
- 10:30 am Coffee Break (15 min)
- 11:45 am Break for lunch (Allison 200)
- 1:15 pm Session 2: Physics goals
 - Technical description of proposed facility
 - Lessons from MPE experiment (U. Konopka)
 - Discussion of physics goals
- 3:45 pm Coffee Break
- 4:00 pm Walk to Leach Science Center
- 4:15 pm Tour of laboratory facilities
- 5:30 pm Return to hotel
- 6:15 pm Gather at lobby for walk to dinner (Zazu's)

Agenda – Tuesday, October 20

- 8:00 am Continental Breakfast
- 8:30 am Session 3: Experiments with a magnetized dusty plasma (S. Robertson, M. Rosenberg)
 - Development of plasma sources
 - Development of diagnostic systems
 - Safety issues
 - Operating as a user facility
- 10:30 am Coffee Break (15 min)
- 11:45 am Break for lunch (Arricia Restaurant)
- 1:30 pm Session 4: Broader plasma community / Long-term funding
 - Education and outreach plans
 - Connections to fusion and space communities
 - Securing long-term funding
- 3:30 pm Coffee Break (15 min)
- 4:45 pm End afternoon session
- 6:15 pm Gather at lobby for walk to dinner (Amsterdam Café)

Agenda – Wednesday, October 21

- 8:00 am Continental breakfast
- 8:30 am Session 5: Workshop summary
 - Revisiting physics goals
 - Prioritizing experiments
 - Outline of workshop report
 - Plans for next steps
- 10:45 am End of workshop – return to hotel