

**Agenda, NIMROD Team meeting**

**August 9-10, 2005**

**3609 Engineering Hall, University of Wisconsin-Madison**

**Tuesday, Aug. 9**

**DEVELOPMENT**

0830-0915 Energetic particles & planning (Kim)

0915-1000 Integral closures (Held)

1000-1020 Interchange testing (Sovinec)

**1020-1030 BREAK**

1030-1115 Two-fluid--centered (Barnes)

1115-1200 Two-fluid--leapfrog & solvers (Sovinec)

**1200-1315 LUNCH**

1315-1315:30 Resistive wall (Kruger)

1315:30-1345 G-mode as benchmark for extended MHD (Schnack)

1345-1430 Summary of PSI-Center plans (Milroy?)

1430-1500 Repositories / Other development

topics--pre/post-processing??? (all)

**1500-1515 BREAK**

**TOKAMAK APPLICATIONS**

1515-1630 ELM high-level milestone activities (Brennan, Schnack, Pankin, and

others) Will include:

Nonlinear ELM result (Sovinec)

Status of/Issues for ELM NIMROD calculations (Brennan)

2-fluid and FLR effects on ELM calculations (Pankin)

1630-1700 CDX-U update (Schnack)

1700-1720 Disruption mitigation simulation (Izzo)

1720-1745 Other tokamak?

**1800+ Team dinner (location TBD)**

**Wednesday, Aug. 10**

**OTHER APPLICATIONS (flexible)**

0845-0900 Spheromak optimization (Cone)

0900-0915 SSX/MRX (Murphy)

0915-0930 PPCD in RFPs (Reynolds)

0930-0945 Two-fluid dynamo (Tian)

0945-1000 Astrophysical jet calculations (Carey)

**1030-1045 BREAK**

1010-1040 Magnetic topology: it's evolution and consequences in SSPX (Hooper)

1040-1110 NIMROD applications to Vasimir rocket (Tarditi)

1110-1200 Others??

**1200-1315 LUNCH**

**LONG-RANGE PLANNING**

1315-1415 Long-range planning (Callen & all)

**CLOSING TOPICS (usual + ?)**

## **NIMROD CLOSURES DISCUSSION**

### **Thursday, August 11 in 514 ERB**

Morning, beginning at 9 am

What are closures? -- Callen

#### **BREAK**

Perpendicular (gyroviscous) closures, numerical issues, benchmarks (Schnack)

Parallel closures based on PIC type codes (Barnes)

Parallel closures based on continuum Chapman-Enskog (Held)

#### **LUNCH**

Afternoon, beginning at 1:15 pm

Comments, critiques on closures (various people?)

Numerical formulations for extended MHD (Sovinec)

A proposed philosophy for NIMROD extended MHD, closures -- Callen

#### **BREAK**

Key scientific problems to address with extended MHD NIMROD? (Callen)

### **Friday, August 12 in 514 ERB**

Morning, beginning at 9 am

Continuation of any unfinished closures discussions

Concluding discussions -- where do we go from here?