Sunday, November 23

8:30  Breakfast and Registration (Meeting Level Two)

9:15  Opening remarks
      Kunioki Mima (Osaka University) and Gennady Shvets (University of Texas)

Laser-Plasma Interactions for ICF Applications and Proton Acceleration
9:30  “Optical mixing to access self-organized, kinetic, nonlinear states in high energy density plasmas”
      Bedros Afeyan (Polymath Associates)

10:00 “Modeling kinetic effects in RBS 3-Wave codes”
      Jonathan Wurtele (UC-Berkeley/LBNL)

10:30 “Theory of laser mono-energetic proton acceleration”
      Chuan Sheng Liu (University of Maryland)

11:00 Coffee and discussion session: “How do we improve our theoretical and computational models to meet the needs of the booming field of HEDLP?”
      Discussion leader: Bedros Afeyan

Fast Ignitor: New experiments, hydrodynamic models, hot electron models
11:30 “Overview of the FIREX project”
      Kunioki Mima (Osaka University)

12:15 Lunch break (Tejas Conference Dining, Meeting Level Two)

1:45  “Hydro simulation for fast ignition with cone target”
      Hideo Nagatomo (Osaka University)

2:15  “Prospects for shock ignition based on hydrocode simulations”
      Andrew Schmitt (Naval Research Laboratory)

2:45  "Positron-electron creation using ultra-intense lasers"
      Edison Liang (Rice University)

3:15  Coffee break (Meeting Level Two)

Relativistic electron/ion beams and novel radiation sources
3:30  “Generation of directional X-ray beams in the 100 KV-100 MV range via betatron motion of electrons in an ion column”
      Chris Clayton (UCLA)

4:00  “Beams of relativistic electrons and x-rays from the high power laser facilities at Michigan”
      Karl Krushelnick (University of Michigan)

4:30  “Photon project in Japan”
      Ryosuke Kodama (Faculty of Engineering, Osaka University)

5:00  Discussions

6:00  Reception (with MHD Control, Magnetic Islands and Rotation Workshop)
Third US-Japan Workshop on Ultra-Intense Laser Plasma Interactions
November 23-24, 2008
The University of Texas at Austin ~ Austin, Texas
AT&T Executive Education Center ~ Classroom 202

Monday, November 24, AT&T Executive Education Center, Classroom 202

8:00 Breakfast (*Meeting Level Two*)

**Laser-plasma accelerators for high energy physics applications**
8:30 “4D visualization of luminal-velocity laser-plasma structures”
    Michael Downer (University of Texas)
9:00 “Laser and beam driven wakefield acceleration in the blowout regime”
    Wei Lu (UCLA)

9:30 “The collective effects of intense ion and electron beams propagating through background plasma”
    Igor Kaganovich (PPPL)

10:00 “Ionization dynamics in laser-matter interaction in short wave length regime”
    Yasuaki Kishimoto (Kyoto University)

10:30 Coffee break and discussion (*Meeting Level Two*)

**Novel modeling tools for laser-plasma and beam-plasma interactions**
10:45 “Boosted frame PIC simulations of LWFA: Towards the energy frontier”
    Samuel Martins (Instituto Superior Tecnico, Portugal)

11:15 “Hybrid simulation of electron beam transport”
    Toshihiro Taguchi (Faculty of Engineering, Setsunan University)

11:45 “Simulations on laser absorption and electron heat transport”
    Atsusi Sunahara (Osaka University)

12:15 Lunch break (*Tejas Conference Dining, Meeting Level Two*)

**Simulations of beam-plasma interactions for Fast Ignition and astrophysics**
1:45 “Merging of super-Alfvenic current filaments during collisionless Weibel instability”
    Oleg Polomarov (University of Rochester)

2:15 “Relativistic Fokker Planck simulation on relativistic electron transport”
    Tomoyuki Johzaki (Osaka University)

2:45 Tour of the Texas Petawatt Facility (*Robert Lee Moore Hall, Level Two*)
    Erhard Gaul (University of Texas)

3:45 Coffee break (*Meeting Level Two*)

**New Concepts**
4:00 “Towards the future Texas Petawatt experiments on laser wakefield acceleration: parameter optimization study”
    Serguei Kalmykov (University of Texas)

4:30 "Development and applications of a stable, quasi-monoenergetic, high-brightness, laser-wakefield accelerator."
    Sudeep Banerjee (University of Nebraska, Lincoln)

5:00 Discussion Session: Challenges in modeling fast ignitor physics: What new computational/theoretical tools need to be developed?
    Discussion leader: Igor Kaganovich (PPPL)

5:30 Workshop adjourns