Agenda – 2015 BOUT++ mini-workshop

December 16- 18, 2015

High Performance Computer Innovation Center (HPCIC)
Livermore Valley Open Campus (LVOC)
Lawrence Livermore National Laboratory

Day 1:

Session 1	***Overview of BOUT++, Bruce Cohen***
	Coffee, tea and water served
9:00 - 9:30	Badging, Setup Wireless Accounts
9:30 - 9:40	Welcome remarks, Bruce Cohen
9:40 - 9:50	Workshop Agenda and Logistics, Xueqiao Xu
9:50 - 10:50	Overview of latest BOUT++ Code: layout and structure Ben Dudson, U. York/ UK
11:00 - 12:00	Discussions and exercises
12:00 – 1:30	Lunch
Session 2	***BOUT++ Code, Xueqiao Xu***
1:30 – 2:30	BOUT++ Physics development Xueqiao Xu, LLNL FESP
2:30 – 3:30	Status of GLF development Chenhao Ma, Peking University/China, remote
3:30 – 4:00	Coffee break
Session 3	***BOUT++ Code, Xueqiao Xu***
4:00 – 5:00	Status of 6-field-two fluid models in BOUT++ Tianyang Xia, IPP/CAS/China
5:00 – 5:45	Discussions

Day 2:

Session 1	***Physics Applications, Tom Rognlien***
	Coffee, tea and water served
9:00 – 10:00	Needs and applications for the DIII-D program Tony Leonard, GA
10:00 – 10:30	Coffee Break & Group Photos
Session 2	***Physics Applications II, Tom Rognlien***
10:30 – 11:15	Experimental study of pedestal turbulence on EAST tokamak Xiang Gao, IPP/CAS/China
11:15 – 12:00	Z-Pinch, Andrea Schmidt, LLNL NSED
12:00 - 12:30	Discussions

12:30 – 1:30	Lunch
Session 3	***Divertor simulations and meshes, Maxim Umansky***
1:30 – 2:30	Status of Divertor detachment, J.M. Canik, ORNL
2:30 – 3:30	The status of AToM and in particular use of BOUT++ in the OMFIT framework C. Holland, UCSD
3:30 –4:00	Coffee break
Session 4	***BOUT++ meshes***, Maxim Umansky
4:00 – 5:00	BOUT++ Mesh generation and simulation geometries Ben Dudson, U. York/UK
5:00 - 5:45	Discussions
6:00 – 7:30	Dinner – Downtown Livermore

Day 3:

Session 1	***Math solvers,*** Andris Dimits Coffee, tea and water served
9:00 – 10:00	Time steppers: Implicit, explicit, and IMEX Ben Dudson, U. York/UK
10:00 – 10:30	Coffee Break
Session 2	***Visualization and Data Analysis, Andris Dimits***
10:30 – 11:15	Porting and optimizing scientific codes for next generation NERSC machines Ankit Bhagatwala, NERSC/LBNL
11:45 – 12:00	Using VisIt for BOUT++ Visualization and Data Analysis, Eric Bugger, LLNL CASC
12:00 – 12:30	Discussions on possible collaborations
12:30 – 1:30	Lunch
Session 3	***Meshes, Tom Rognlien***
1:30 – 2:30	Snow Flake divertor mesh generators Maxim Umansky, LLNL FEP
2:30 – 3:00	Flux--driven turbulence simulation of L-H transition Seto Haruki, JAEA/Japan
3:00 –3:30	Coffee break
Session 4	***Discussions, Tom Rognlien***
3:30 – 5:00	Discussions
5:45 - 6:00	Close