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Results from the PSI-Center Interfacing Group B.A. NELSON, C.C. KIM, A.I.D. MACNAB, R.D. MILROY, T.R. JARBOE, University of Washington, J. KESNER, M.I.T., D.T. GARNIER, Columbia University, C.R. SOVINEC, University of Wisconsin-Madison, P.M. BELLAN, Caltech, M.R. BROWN, Swarthmore College — The Interfacing Group of the Plasma Science and Innovation Center (PSI–Center — http://www.psicenter.org) facilitates simulations of collaborating Innovative Confinement Concept (ICC) experiments. Present collaborating experiments include the Bellan Plasma Group (Caltech), FRX–L (Los Alamos National Laboratory), HIT–SI (Univ of Wash — UW), LDX (M.I.T.), MBX (Univ of Texas–Austin), MST, Pegasus (Univ of Wisc–Madison), PHD (UW), SSPX (Lawrence Livermore National Laboratory), SSX (Swarthmore College), TCS (UW), and ZaP (UW). NIMROD code meshes have been created and/or modified for the Caltech, SSX, and LDX experiments. Simulations of the Caltech and SSX experiments study formation and buildup of electrode-driven helicity injection. LDX simulations study stability of marginally-stable equilibria as additional heating increases pressure gradients. NIMROD output files are interfaced to the powerful 3-D viewer, VisIt (http://www.llnl.gov/visit), which will be demonstrated. Results from these simulations, as well as an overview of the Interfacing Group status will be presented.

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