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Relaunch of the Interactive Plasma Physics Educational Experience (IPPEX) A. DOMINGUEZ, PPPL, L. RUSAITIS, UCLA, A. ZWICKER, D.P. STOTLER, PPPL — In the late 1990's PPPL's Science Education Department developed an innovative online site called the Interactive Plasma Physics Educational Experience (IPPEX). It featured (among other modules) two Java based applications which simulated tokamak physics: A steady state tokamak (SST) and a time dependent tokamak (TDT). The physics underlying the SST and the TDT are based on the ASPECT code [1] which is a global power balance code developed to evaluate the performance of fusion reactor designs. We have relaunched the IPPEX site with updated modules and functionalities: The site itself is now dynamic on all platforms. The graphic design of the site has been modified to current standards. The virtual tokamak programming has been redone in Javascript, taking advantage of the speed and compactness of the code. The GUI of the tokamak has been completely redesigned, including more intuitive representations of changes in the plasma, e.g., particles moving along magnetic field lines. The use of GPU accelerated computation provides accurate and smooth visual representations of the plasma. We will present the current version of IPPEX as well near term plans of incorporating real time NSTX-U data into the simulation.

[1] D.P. Stotler et al., Comp. Phys. Comm. 81, 261 (1994)

Arturo Dominguez
PPPL

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