

Abstract Submitted  
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**Web Interfaces to Fusion Codes**<sup>1</sup> E. FEIBUSH, G. KRAMER, D. McCUNE, R. NAZIKIAN, E. VALEO, Princeton University, Plasma Physics Laboratory, SCOTT KLASKY, Oak Ridge National Laboratory — From our experience in programming methods we can deploy efficient web-based, graphical interfaces that run in a browser and provide secure Internet access to site-specific data and computational physics applications. We present 2 case studies: (1) reflectometry diagnostic simulation, and (2) plotting results of transport analysis runs for tokamak experiments. In case study (1), the user defines the input plasma and reflectometer. The plasma can be parametrically modeled or based on data acquired from experiments. Visualization of the full wave solution is displayed along with the correlation of frequencies between receivers to identify turbulence and fluctuation in the plasma. Case study (2) is a new interface for interactive display of TRANSP results. Both graphical user interfaces, running in web browsers for portability and convenient access, communicate with fusion codes running on compute servers maintained at PPPL. The web service approach facilitates collaboration, enforces security, eliminates software installation, and eases access to scientific applications.

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