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Virtual Diagnostics Toolset for Tokamak Simulations JIN-SOO KIM, FAR-TECH, Inc., ALAN TURNBULL, General Atomics — FAR-TECH, Inc. is developing a virtual diagnostics toolset for tokamak simulations. As plasma modeling and simulation become mature, virtual diagnostics for tokamak simulations are poised to provide valuable data to be compared to experiments for further advancement of tokamak research. A virtual diagnostics toolset that allows direct comparison of numerical simulation with tokamak measurements can provide a valuable tool for thorough understanding of tokamak plasmas and further define future necessary diagnostics. A paradigm of the project will be presented using a linearized MHD instability as an example. Work supported by US Depatrment of Energy.

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