

Abstract Submitted  
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**First temporally dynamic simulation of core transport using the FACETS framework with GYRO and NUBEAM**<sup>1</sup> SRINATH VADLAMANI, Tech-X Corp., JEFF CANDY, AARON COLLIER, General Atomics, AMMAR HAKIM, SCOTT KRUGER, ALEX PLETZER, Tech-X Corp., FACETS TEAM — Motivated by the need to accurately predict the time evolution of profiles in tokamaks, we present initial results of core transport simulations using first principle anomalous and neoclassical flux calculations obtained from the GYRO and NEO codes, respectively. Sources are provided by NUBEAM. All three components (GYRO, NEO, and NUBEAM) are executed concurrently using the Framework Architecture for Core-Edge Transport Simulations (FACETS). Progress on the development of a new core solver, which is sufficiently robust to implicitly advance distributed kinetic components, each running on 100-1000s cores, will be presented.

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