

ASTRA

an Accelerated Spectral code for TuRbulent plAsmas

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Abstract

In this contribution, I will introduce the ASTRA code, a next-generation fully spectral code designed to study the dynamics of astrophysical plasmas by utilising GPU-accelerated machines. ASTRA is based on the Kokkos and Kokkos-FFT libraries to ensure performance portability across multi-GPU machines. I will present the codes main features, limitations and scalability across the various architectures available in France.