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The Idefix code: Looking back at the development of an exascale code, from design to production on pre-exascale clusters

Thursday, 26 September 2024 09:00 (30 minutes)

Idefix is a versatile Godunov MHD finite volume code designed to run on accelerated supercomputers using the C++ Kokkos framework. In this keynote, I will discuss our motivations for creating a new code (in contrast to porting an existing one) and the path we followed. As the code is now public and is becoming more widely used, I will also illustrate the difficulties physicists encounter when using codes of this kind, and how to address them to maximise the transition of our communities to the new generation of accelerated machines.

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