

OpenGADGET3 in SPACE

Tuesday, 30 July 2024 15:00 (30 minutes)

The next generation of supercomputers will use a heterogeneous design to achieve exaflop capabilities. While this heterogeneous design offers significantly larger computational power it also increases the complexity of such systems. This has a significant impact on simulation codes to be run on these machines. Since the focus in the past was mainly on the scalability of CPUs with the introduction of GPUs new methods have to be found to adapt the code. By not being able to use the available GPUs properly, a significant fraction of computational power would be unusable, which would result in a hard barrier for any large simulations in the future.

Scalable Parallel Astrophysical Codes for Exascale (SPACE) is an EU Centre of Excellence focused on astrophysical and cosmological applications in the advent of exascale computation. In this session, we will introduce the CoE and its mission, as well as results from activities within the CoE for OpenGADGET3.

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