Contribution ID: **11** Type: **Short Talk**

NekRS in turbulent combustion research of renewable fuels

Monday, July 29, 2024 2:20 PM (20 minutes)

Hydrogen and Ammonia-based fuels will play a pivotal role for future carbon-free combustion systems. Direct numerical simulation (DNS) plays a pivotal role in establishing comprehensive understanding of the complex interactions of turbulence and the flame and forms the basis on which novel combustion models can be developed. We will be presenting the current activities on turbulent combustion DNS with nekRS/nekCRF at TU Darmstadt in collaboration with Jülich Supercomputing Centre and highlight contributions with potential interest to the community.

Relevance for Nek [100 words max]

Showcasing some use cases of nekrs from the combustion community

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