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Large Eddy Simulation of ignition in an annular multi-injector combustor RONAN VICQUELIN, MAXIME PHILIP, MATTHIEU BOILEAU, THOMAS SCHMITT, JEAN-FRANÇOIS BOURGOIN, DANIEL DUROX, SÉBASTIEN CANDEL, Ecole Centrale Paris, CNRS EM2C — The present work deals with validating the LES methodology for transient ignition simulations, and in particular elucidating the mechanisms that control the light round sequence in a laboratory annular combustor, representative of many practical industrial systems. The simulation benefits from the unique experimental database built at EM2C on a fully transparent annular chamber equipped with 16 premixed swirled injectors. The F-TACLES combustion model is used for its ability to properly represent the flame propagation.

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