



KTH Stockholm (Sweden)

PhD student position: Computational Aeroacoustics of Compressible Flows

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A Doctoral student position in Computational Aeroacoustics of compressible flows as part of the EU project INSPIRE has been opened at KTH (deadline October 30th, 2020).

Details regarding the position and the application process can be found at the link below:

<https://kth.varbi.com/en/what/job/jobID:349878/where:4/>

The INSPIRE project is aimed at studying Pressure Gain Combustion solutions for the efficient use of carbon neutral fuels such as Hydrogen. This is a new project granted by the European Commission at the latest call (2020) of H2020 Marie Skłodowska-Curie Innovative Training Networks.

In INSPIRE, KTH's task is to advance the current understanding of the aerodynamically generated noise in Rotating Detonation Combustion (RDC) concepts; to explore and identify noise suppression technologies at the exit of the nozzle within this context. Large Eddy Simulation (LES) calculations of the exhaust flow for different RDC operating conditions, completed by near-field and far-field acoustics will be used to quantify acoustic sources and radiated noise for operating conditions of interest. Noise suppression technologies will be assessed.

Some of the recent efforts carried out at KTH on the topic can be found at the links below:

<https://arc.aiaa.org/doi/abs/10.2514/6.2020-0746>

<https://doi.org/10.1017/jfm.2020.233>

<https://arc.aiaa.org/doi/abs/10.2514/1.J056936?journalCode=aiaaj>

<https://arc.aiaa.org/doi/abs/10.2514/1.J057514>

<https://arc.aiaa.org/doi/abs/10.2514/1.J057629>

<https://arc.aiaa.org/doi/abs/10.2514/6.2019-2753>

<https://arc.aiaa.org/doi/abs/10.2514/1.J057537>

<https://arc.aiaa.org/doi/abs/10.2514/6.2018-3303>

<https://arc.aiaa.org/doi/abs/10.2514/6.2017-3018>

<https://arc.aiaa.org/doi/abs/10.2514/6.2017-0002>

<https://www.sciencedirect.com/science/article/abs/pii/S0022460X1830484>

<https://link.springer.com/content/pdf/10.1007%2Fs10494-018-9964-9.pdf>