WARSAW UNIVERSITY OF TECHNOLOGY
FACULTY OF POWER AND AERONAUTICAL ENGINEERING

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Master Thesis project on Direct Numerical and Large Eddy Simulations to investigate boundary layer instabilities mechanism influenced by acoustic waves

Qualification Type: **Master Thesis student**
Location: **Warsaw**
Funding for: **Warsaw University of Technology students (graduate studies)**
Funding amount: **4500 PLN grant per month**
Hours: **Full Time**
Project is funded by the National Science Centre (www.ncn.gov.pl)

The aim of this project is to understand the instability mechanism in the laminar and turbulent boundary layers triggered by the acoustic waves using highly accurate flow solutions obtained from Direct Numerical and/or Large Eddy Simulations.

Eligibility criteria

Key requirements:

- Batchelor's degree in relevant engineering or applied mathematics or physics is essential;
- Candidate is expected to demonstrate knowledge, understanding and experience of mathematical and numerical modelling and the use of software package for mesh generation and for flow simulations;
- Proved very good knowledge of fluid mechanics and computational fluid mechanics;
- Some programming skills (e.g. Python) are desirable;
- Fluency in English is desirable (at least communicative level).

Information

Talented and hard-working researcher will be supported by a financial grant (4500 PLN/month). The student will be allowed to present his/her work at an international scientific conference, e.g. AIAA AVIATION Forum and Exposition, https://www.aiaa.org/aviation (all fees and expenses will be funded). Duration of financial support at least 6 months (12 months is preferred). Decision on acceptance of the project will be made after 1 month of training period. Start of the training period: October 18, 2021. End of training period: November 19, 2021. Project start: January 1, 2022 (contract agreement).

If you are interested, please send your CV and academic transcript to dr inż. Zbigniew Rarata (zbigniew.rarata@pw.edu.pl).

Closing date: The first call for applications will close on October 15, 2021 (12:00). Only suitable candidates will be contacted.