Statistical Methods for Analysis of Engineering Data

Addressees:
Students with basic mathematical knowledge, PhD students and postdocs

Goals:
- Brush up your knowledge of applied statistical methods
- Provide you with worked examples of data analysis
- Teach you how to report your data and avoid potential pitfalls
- Inform you about available tools and latest developments

Content Outline:
- Introduction to data: descriptive statistics, robust statistics, data representation, reporting results
- Important distributions: normal, Student’s t; Q-Q plot
- Statistical inference: standard error, confidence intervals
- Statistical tests: checking normality, comparing data samples
- Regression: linear, non-linear, confidence intervals, robust regression
- Step-by-step analysis for your data

Methods:
In this course we fuse together brief theoretical background with numerous examples from current literature and address research questions from your practice.

Language:
This workshop will be held in English. Good English skills are of advantage but are not a requirement.

Trainer:
Jun.-Prof. Dr. Pavel Gurikov, Institute of Thermal Separation Processes, TUHH

Date: Tue 26 March 2019, 10:00 a.m. to 03:30 p.m.

Place: TUHH, Am Schwarzenberg-Campus 1, Room A 2.79

Registration:
Due to a limited number of participants a binding registration is necessary. Please ask your supervisor for permission to participate and then address your registration to https://intranet.tuhh.de/anmeldung/statistical_methods.

For registered participants attendance at the entire workshop is obligatory.

Suggest topics that interest you the most:
You are invited to suggest other topics that you would like to learn. Please feel free to contact your instructor directly (pavel.gurikov@tuhh.de).

Submit your data to be analyzed during the course:
You are invited to submit your data to be analyzed during the course. For further details please visit: https://www.tuhh.de/v8/teaching.html

Please note that data submission will be closed on February 15th, 2019, one month before the course starts.

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