

## Directorate of the PhD Studies

invite PHD students and researchers to attend the special series of lectures by

**Prof. Tibor K. Pogany**

*University of Rijeka, Croatia*

### **Introduction to Probability and Mathematical Statistics**

*The lectures are planned to provide the audience an introduction to probabilistic and statistical methods and their aim is to clarify the background of these methods to anybody interested in their practical applications. For PhD students attending the lectures will taken into account in the evaluation procedure for the academic year 2018/2019.*

Topics:

1. Axiomatic definition of probability. Probability space. Conditional probability. Independence.
2. Random variables (RV). Distribution. Cumulative distribution function. Density. Vectorial RV. Numerical characteristics of RV.
3. Characteristic functions.
4. Limit theorems in probability. Convergence of a sequence of RVs. Law of large numbers. Central limit theorems.
5. Mathematical statistics. Sample. Central theorem of Math Stat. Distributions of some statistics. Parameter estimation. Completeness. Efficiency. Maximum likelihood.

#### **Tentative schedule:**

Monday, 18.02.2019, 13.30-15.30, room 4402 (IVth floor)

Tuesday, 19.02.2019, 14.30-16.30, room 5301 (Ist floor, PhD)

Wednesday, 20.02.2019, 13.30-15.30, room 4402

Thursday, 21.02.2019, 14.30-16.30, room 5301 (Ist floor, PhD)

Friday, 22.03.2019, 11.00-13.00, room 4402 (IVth floor)

Monday, 25.02.2019, 13.30-15.30, room 4402 (IVth floor)

Tuesday, 26.02.2019, 14.30-16.30, room 5301 (Ist floor, PhD)