

Krakow Interdisciplinary Doctoral School (KISD) and International PhD School IFJ PAN invite all who want to become more familiar with maths, doctoral students and researchers, to attend the mini series of lectures

**Foundations of mathematical statistics for non-specialists:  
concise introduction to the subject for all working in science**

by **Prof. Zivorad Tomovski**

University of Ostrava, Czechia

Tentative syllabus and schedule:

1. Random variable (discrete and continuous)
2. Probability distributions and density function
3. Examples of RV: Binomial, Poisson, Normal, Gamma, Xi-square, Student t-distribution.
4. Math. expectation, variance, covariance, moments, correlation functions
5. Skewness and kurtosis and their coefficients
6. Central limit theorem and examples
7. Population, sample, parameters, median, mode, quartile, quantile, histogram
8. Statistical estimates (definitions and examples)
9. Method of moments
10. Maximal likelihood method by Fisher

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Monday, 5th September 2022, 2.30-4.00 p.m.

Tuesday, 6th September 2022, 2.30-4.00 p.m.

Thursday, 8th September 2022, 2.30-4.00 p.m.

Friday, 9th September, „consultation hour” 11.00-12.00 a.m

Place: IFJ PAN, room 5301 (PhD School lecture room)

On behalf of KISD

Prof. Andrzej Horzela