

POZVÁNKA na SEMINÁŘ

v úterý 3. března v 13:30
v posluchárně č. 5.068 v budově PřF UPOL, 17. listopadu č. 12.

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Beyond Aitchison: Generalized Geometries for Compositional Data

Abstract: In Compositional Data Analysis, the Aitchison geometry is the gold standard, providing a Euclidean vector space structure for probability distinct from the simplex. But how does this structure relate to information-theoretic measures? This talk explores the correspondence between f-divergences (such as Total Variation and KL) and the geometry of Bayes Hilbert Spaces. Using a novel framework that generalizes the concept of f-divergences, we will visualize how the choice of the divergence generating function dictates the geometry of the space. The talk will conclude by showing how embedding these geometrically-informed divergences into the objective function of f-GANs significantly improves training stability and generation quality compared to standard baselines, effectively bridging abstract functional analysis with modern representation learning.

K účasti jsou zváni jak členové katedry, tak všichni učitelé, vědečtí pracovníci a studenti, kteří mají o problematiku zájem.

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doc. RNDr. Jan Tomeček, Ph.D.
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prof. RNDr. Karel Hron, Ph.D., DSc.
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