Charles University
Faculty of Mathematics and Physics

Cordially invites you to

2nd Matoušek's Lecture

**Two neural revolutions
in the life of a not so
old speech recognition
researcher**

Given by

prof. Dr. Ing. Jan Černocký
(Faculty of Information Technology, Brno
University of Technology)

**On Wednesday, May 28, 2025
at 2 p.m.**

In Matoušek's Auditorium (N1),
MFF UK
V Holešovičkách 747/2, 180 00 Praha 8

Abstract: When I started my career in speech processing around 2000, artificial neural networks (NN) were at the edge of interest and the world was dominated by Gaussian models. The term "artificial intelligence" was used only by a few enthusiasts. Thanks to the work of Geoffrey Hinton, Tomáš Mikolov and many others, NNs prevailed after 2010 and defined a new paradigm not only for speech recognition but for many domains of machine learning. 2020s witness another revolution - the world is revolving around large pre-trained models that bring a disruptive improvement in performance, huge impact on the society but also problems not seen before. This talk will evaluate our options from the position of a research group manager, teacher and citizen.

Jan "Honza" Černocký is a full professor and Head of the Department of Computer Graphics and Multimedia at the Faculty of Information Technology, Brno University of Technology (FIT BUT). He graduated with an engineering degree from BUT in 1993 and got his doctorate from Université Paris XI Orsay and BUT in 1998. He also serves as the managing director of the BUT Speech@FIT research group. His research focuses on artificial intelligence, signal processing, and speech, speaker, and language recognition. At FIT BUT, he is responsible for courses related to signal and speech processing. In 2006, he co-founded the company Phonexia. He has played a key role in organizing major speech and signal processing conferences in Czechia, including ICASSP 2011 in Prague and Interspeech 2021 in Brno.