



**Seminar Hora Informaticae**

**Institute of Computer Science, Prague**

**Tuesday, April 4, 2023, 14.00 – 15.30 (2 - 3:30 PM) CET**

**Meeting room 318, Address: Pod Vodárenskou věží 2, Prague 8**

**ZOOM: <https://cesnet.zoom.us/j/95478234977?pwd=dXoyekFHbDJ0MkNrTjVVS3F2STZqUT09>**

**Meeting ID: 954 7823 4977 , Passcode: 712564**

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**Rudolf Rosa, Institute of Formal and Applied Linguistics, Charles Univ., Fac Math & Phys:**

**GPT et al.: Generating Texts with Transformer-Based Large Language Models.**

This presentation explores the use of large transformer-based language models for generating texts. We will discuss the history of language modeling and how the recent advances in recurrent neural networks (RNNs) and transformer networks have enabled the development of powerful language models. We will also examine the use of subwords and attention mechanisms in these models. Finally, we will present the THEaiTRE project, which uses transformer-based language models to generate theatre play scripts.

References:

Vaswani, Ashish, et al. "Attention is all you need." Advances in neural information processing systems 30 (2017). <https://nips.cc/Conferences/2017/Schedule?showEvent=9372>

Schulman, J., et al. "ChatGPT: Optimizing language models for dialogue." (2022). <https://openai.com/blog/chatgpt/>

Rosa, Rudolf, et al. "THEaiTRobot: An Interactive Tool for Generating Theatre Play Scripts." Proceedings of the 15th Conference on Natural Language Generation: System Demonstrations. 2022. <https://aclanthology.org/2022.inlg-demos.4/>

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**Rudolf Rosa** is a computational linguist, focusing on automatic generation of texts, multilingual processing, and interpretation of artificial neural networks. Since 2011, he has been doing research at the Institute of formal and applied linguistics at Charles University in Prague, currently at the position of a research associate. In recent years, Rudolf was the head of the THEaiTRE research project, which produced the first Czech theatre play with an automatically generated script.

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**HORA INFORMATICAЕ** (meaning: TIME FOR INFORMATICS) is a broad-spectrum scientific seminar devoted to all core areas of computer science and its interdisciplinary interfaces with other sciences and applied domains. Original contributions addressing classical and emerging topics are welcome. Founded by Jiří Wiedermann, the seminar is running since 1994 at the Institute of Computer Science of the Czech Academy of Sciences in Prague.

<https://www.cs.cas.cz/horainf>