**Title: Central Banks Talk Data Science: NLP for macroeconomic forecasting**

**Author(s):** Juri Marcucci (1)

**Affiliation(s):** Bank of Italy (1)

**Abstract:** Central banks are increasingly using data science to improve their understanding of the economy and to make better and more informed decisions about monetary policy. Data science combines big data, nontraditional data, machine learning, and artificial intelligence algorithms to extract insights from complex and unstructured data sets.

This talk will provide a broad overview of how central banks are using data science, particularly natural language processing (NLP), to nowcast and forecast macroeconomic variables such as GDP growth, inflation, and unemployment. NLP is a machine learning technique that can be used to extract meaning from text and speech data.

Central banks are using NLP to analyze a wide range of text data sources, including news articles, social media posts, and financial reports. This data can be used to track economic sentiment, identify emerging risks, and forecast future economic trends.

The talk will discuss specific examples of how central banks are using NLP for macroeconomic forecasting. It will also highlight the challenges and opportunities of using NLP for this purpose.

**Keywords**: Data science; Natural Language Processing, Machine Learning, Nowcasting, Forecasting, Big Data, Macroeconomics, Central banks

**Author Profiles (s):**

Google Scholar: <https://scholar.google.com/citations?user=YWDhpbYAAAAJ&hl=it>,

Linkedin: <https://www.linkedin.com/in/juri-marcucci-159a2028/>

ORCID: <https://orcid.org/0000-0002-2748-6288>

Website: <https://sites.google.com/site/jurimarcucci/>