**Abstract**

Professional language evolution reveals the development of geophysics: researchers enthusiastically describe new methods of survey, data processing techniques, and objects of their study. Geophysicists publish their cutting-edge research at international conferences proceedings to share their achievements with the world. Tracking changes in the language allows one to identify trends and the current state of the science. Here, we describe the text and metadata analysis of the last 38 Annual Conferences organized by the Society of Exploration Geophysicists, one of the biggest geophysical gatherings. We split 24,500 articles into words and phrases and analyze the change in their usage frequency over time. We find that in 2019 the phrase “neural network” is used more often than “field data.” The word “shale” has become less commonly used, but the term “unconventional” is growing in occurrence. The number of publications from oil companies reflects their financial situation; the number of papers from the academia of various countries indicates government financing of research. The USA academia has the most significant number of publications; in 2019, the number of papers from China was almost equal to those of the USA. An analysis of conference materials and metadata allows one to identify trends in a specific field of knowledge and predict the development in the near future.

