Contribution ID: **159** Type: **Oral Presentation**

Weather and Landslide Data Analysis Using Spatio-Temporal and Categorical Data Mining

Wednesday, 18 March 2026 14:44 (22 minutes)

Spatio-temporal data mining is effective for extracting useful information from the occurrence frequencies and patterns of real-world physical phenomena. The author has previously proposed a spatio-temporal and categorical data mining method that not only extracts occurrence frequencies and patterns from spatio-temporal features, but also performs semantic interpretation of relationships between two different events by incorporating categorical information.
In this study, with the aim of examining whether this method is applicable beyond the commerce domain, the author investigate whether future landslide occurrences can be predicted by computing correlation measures between weather data and landslide occurrence data. A distinctive feature of the proposed approach is that prediction is performed not by conventional statistical calculations, but by searching for past events similar to the current situation and utilizing the subsequent temporal evolution of those events. In this presentation, the author describe the details of the method, report experimental results, and discuss its potential applicability to other domains.

Primary author: HAYASHI, Yasuhiro (Musashino University)

Presenter: HAYASHI, Yasuhiro (Musashino University)

Session Classification: Artificial Intelligence (AI) - I

Track Classification: Track 10: Artificial Intelligence (AI)