Oral | Symbol M (Multidisciplinary and Interdisciplinary) | M-TT Technology & Techniques

[M-TT41_28PM2]Mapping and spatial representation in geoscience

Convener:*Mamoru Koarai(Geographic Information Analysis Research Division, Geography and Crustal Dynamics Research Center, Geographical Survey Institute), Atsushi Suzuki(Faculty of Geo-environmental Science, Rissho University), Chair:Mamoru Koarai(Geographic Information Analysis Research Division, Geography and Crustal Dynamics Research Center, Geographical Survey Institute), Atsushi Suzuki(Faculty of Geo-environmental Science, Rissho University)

Mon. Apr 28, 2014 5:06 PM - 5:57 PM 422 (4F)

In geoscience, spatial structure of the object are important subjects and their representation is necessary. This session discusses preparation, visualization and analysis methods of spatial data and their application to science and human society, aiming at the development of mapping and other spatial representation methods.

5:06 PM - 5:21 PM

[MTT41-P05_PG]Development of the CS (Curvature and Slope) topographical map

3-min talk in an oral session

*Kenichiro TODA[1], Hiromu DAIMARU[2], Mamoru KOARAI[3], Takayuki NAKANO[3], Junko IWAHASHI[3] (1.Nagano Prefecture Forestry Recerch Center, 2.Forestry and Forest Products Reserch Institute, 3.Geospatial Information Authority of Japan)

Keywords:CS topographical map, topographical interpretation, curvature, slope

For the topographical interpretation, we developed CS (Curvature and Slope) topographical map to visualize micro-relief that affect landslide susceptibility in mountain area. The CS topographical map represents valleys by blue color and ridges by red color, simultaneously steep slopes are assigned to dark color. We produced CS topographical map for the entire area of Nagano Prefecture from airborne LiDAR DEM and conducted many micro landslide such as linear depressions in landslide blocks, valley head hollows were recognized, and they were confirmed by subsequent field survey. The CS topographical map provides us with many information about distribution of micro-relief in mountain area, and it may be a prominent tool for evaluating landslide susceptibility.

©Japan Geoscience Union