

Research regarding research of long-term deformation of large-scaled rock slope

[Point]

As a method rock slope monitoring method by satellite data, we examined possibility of earth variation extraction by satellite InSAR, and possibility of damaged area extraction SAR strength image (backscatter coefficient) . As a result, regarding earth variation amount, we could clarify that effects of base length, earth surface variation (vegetation and others) and geological formation are important measuring conditions to get the accurate result, but even if we could clear the conditions, difference between the resolution and variation rock body size isn't large, therefore we couldn't remove noise much enough, in this condition, it was difficult to apply rock slope monitoring. Moreover, regarding the damaged area extraction, in some cases, we could observe small difference of backscatter coefficient depending on earth surface conditions (vegetation, rock quality and so on), however we clarified that it is difficult to determine by sensitivity thresholds, because frequent distribution was overlapped considerably.

Keyword : rock slope, artificial satellite, S A R, backscatter coefficient