



## **Road and railway interruptions due to landsliding in the Czech Republic over the last 20 years**

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Landslides along road and railways pose potential threat to traffic flow. We have gathered data about traffic disruptions due to landsliding on Czech road and railway networks for the last 20 years. The database, which also contains information about transportation infrastructure damage, is being updated daily. 321 traffic interruptions (between 1997 and 2016) due to landsliding are registered for roads and 73 for railways.

We also obtained data on landslides around roads from the Register of Slope Deformations – spatial landslide database provided by the Czech Geological Survey. These two datasets were used to calculate landslide potential which reflects the likelihood of a disruption occurrence induced by a landslide.

In the second step, we estimated the probability of a disruption due to landsliding for road and railway infrastructures. This estimation was based on the landslide potential, empirical data and an expert-based quantification of landslide susceptibility of related geological units. We applied Bayesian inference for roads with empirical data and regression modelling for the rest of the roads.

We will discuss uncertainty in primary and inferred data and how it could affect the resulting hazard values. Spatial layers of landslide hazard along transportation lines are visualized on RUPOK ([www.rupok.cz](http://www.rupok.cz)) web map application.