

Special Issue

Quantification of Soil Erosion and Sediment Transport in Basins

Message from the Guest Editors

Soil erosion in basins is mainly caused by rainfall and runoff. Soil erosion products are transported by runoff into the streams of the basin considered and through the streams to the basin outlet, which may also be the inlet of a natural or artificial lake. The quantification of the physical processes of soil erosion and sediment transport can be achieved by mathematical modeling including empirical, conceptual and physically based relationships. Field measurements, laboratory experiments, and satellite monitoring can be used for the verification of computational results. **List of topics:**

- Mathematical modeling of soil erosion in basins due to rainfall and runoff
- Mathematical modeling of stream sediment transport
- Verification of computational results by means of field measurements
- Verification of computational results by means of laboratory measurements
- Application of machine learning methods to sediment transport problems
- Application of fuzzy regression analysis to sediment transport formulas
- Constructive and management measures against soil erosion and sediment transport

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Deadline for manuscript submissions

closed (6 June 2025)



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