Background

The concept of lightweight models, in which lightweight materials are used as sediment, is older than six decades and is being practised by different laboratories around the world. Those laboratories have their own scaling criteria and study methodologies regarding such models. There is still a lack of common scaling criteria

for designing a lightweight model and for quantitative interpretation of model results.

Objective

To assess, and develop it further if required, the existing similarity/scaling criteria for designing lightweight models for study of morphological processes with specific regards to sediments in reservoirs.

The developed scaling criteria will be tested in a case study of relevant scenario. The current work is part of the project SediPASS «Sustainable design and operation of hydro power plants exposed to high sediment yield» funded by the Research Council of Norway.

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Simulating reservoir flushing in scale models using lightweight sediments

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