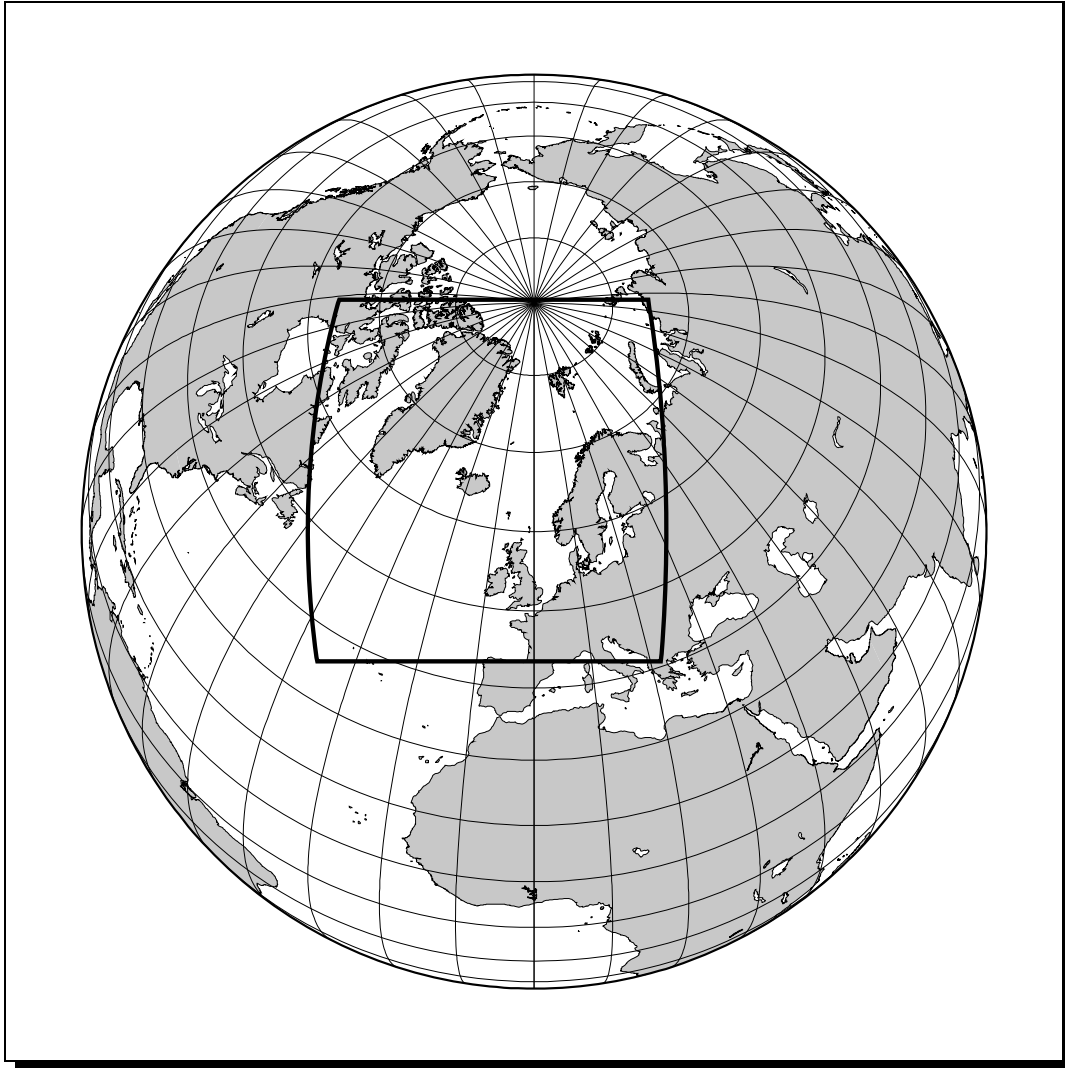


Numerical modeling of particle tracing
— a prognostic tool in marine geology

Bernd J. Haupt and Karl Stattegger



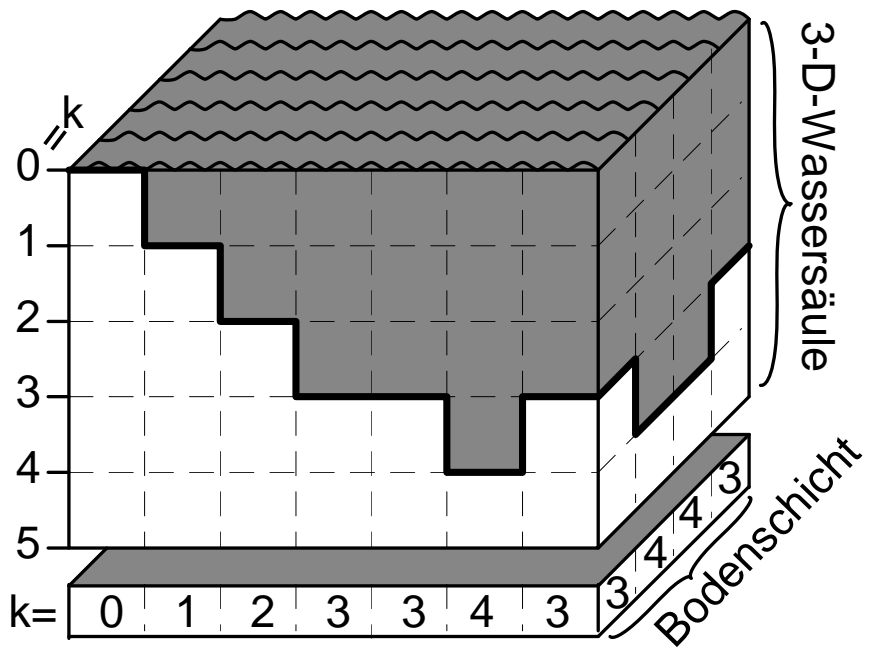
The model area of SENNA and PATRINNA.

SENNA: **SE**dimentation (Erosion, Transport, and Deposition)
in the **N**orthern **N**orth **A**tlantic

PATRINNA: **PA**rticle **Tr**acing **I**n the **N**orthern **N**orth **A**tlantic

Structure of the talk

- a) What is meant to be modelled and what results do the two models provide?
- b) What requirements does the model have to meet?
- c) Description of the models SENNA und PATRINNA?: flow chart
- d) In what way are the critical velocities at the beginning of the bottom and suspension transport considered?
- e) Model area, grid resolution, topography of the model.
- f) Two modeled scenarios: Rezent/LGM
- g) Problematical areas of the model and *one* possible solution.





The diagram shows a cross-section of a terrain with a grey background representing a 3-D model. A thick black line follows the surface contour. Below this line, a white stepped area represents a 2-D soil layer. A label '3-D-Modell' is in a white rounded rectangle at the top. A label '2-D-, „Bodenschicht“' is in a white rounded rectangle at the bottom right, with an arrow pointing to the soil layer.

3-D-Modell

2-D-, „Bodenschicht“