

Early Career Researcher Support Programme

Basic Knowledge Course

Age Models and Geochronology: An Introduction to Different Age-depth Modelling Approaches

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Objectives and Topics

In an era of science that uses numerical models to better understand physical processes occurring on Earth, there is an increasing demand for robust empirical datasets to constrain these simulations. Generating robust datasets, especially data sets that express stratigraphic positions of sedimentary deposits as ages, often involves the use of multiple, independent geochronological techniques (e.g. different kinds of radioisotopic dating, magneto-, bio-, cyclostratigraphy and sedimentologic relationships along the succession). The integration of these different kinds of geochronological information often poses challenges.

Age-depth models are the ultimate result of the integration of different geochronological techniques, and range from linear interpolation to more complex Bayesian techniques. We will introduce several modelling concepts and their application in a range of paleoenvironmental and paleoclimatic records. This course will provide an introduction to the field of (Bayesian) age-depth models and will highlight the assumptions, benefits and limitations of different model approaches. It will prepare participants for independent application of suitable age-depth models to their data.

Location and Time

MARUM, University of Bremen, Leobener Str. 8, 28359 Bremen, Germany
MARUM I (main) building, room 2070

09.00 – 17.00 hrs.

Target Group

Early Career Researchers who work with age models.

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Registration

To register for this course, please visit the [course webpage](#).

Please note that your registration will be binding.

The registration deadline for this course is **15 April 2020** for IAS members who apply for a travel grant. For all other participants, the deadline is **18 May 2020**. However, places are confirmed on a first-come, first-serve basis.

Any enquiries regarding the course should be addressed to early-career@marum.de.

Information for external participants

We will be happy to provide a list of hostels, hotels and travel information. Just contact us at early-career@marum.de



Members of the International Association of Sedimentologists (IAS) can apply for a **travel grant** through the IAS website (<http://www.sedimentologists.org/>). If approved, grants are transferred to student bank accounts AFTER the short course and on condition that a confirmation of attendance has been signed beforehand. The deadline for travel grant applications is **15 April 2020**.