

Fundamentals in Biogeochemical Modelling

Lecture part of MNF-bioc-335

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Fridays 10:00-11:30, Seminar Room (West), start: 26.10.18 (Stand-alone lecture. To receive ETCS points, additional participation in the seminar is required: Seminar ("Current Topics..."): Tuesdays 11:00-12:30, Seeburg seminar room, start: 30.10.18)

Lecture program:

- 26.10.18 Introduction, motivation: what to expect from modelling? Modelling concepts; past and current questions & challenges (AO?)
- 2.11.18 Basics in modelling biogeochemical cycling: ocean circulation and air-sea gas exchange (CS)
- 9.11.18 Basics in modelling biogeochemical cycling: organic matter production (MP & AL)
- 16.11.18 Basics in modelling biogeochemical cycling: transport and remineralisation of dissolved organic matter (WK & AL)
- 23.11.18 Basics in modelling biogeochemical cycling: transport and remineralisation of particulate organic matter (IK)
- 30.11.18 Logics & concepts behind modelling I (UL)
- 7.12.18 Logics & concepts behind modelling II (UL)
- 14.12.18 Model assessment I: data-model comparisons, error models, basic idea of data assimilation/parameter estimation (MS)
- 11.1.19 Time scales, geological, physical, biological (IK & WK)
- 18.1.19 Resolution matters, physics and biology (IF & IK)
- 25.1.18 Model assessment II: data types, availability, resolution, upcoming data (MS, IK, IF, WK)
- 1.2.19 Zooplankton and the role of ecology, biodiversity and top-down control (FP)
- 8.2.19 Examples of typical modelling and programming errors and pitfalls. What have we learned so far? Where to go? (IK, AO)