

## ISOS Course

# Imperfect Models and Coarse Data

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21 November 2016 | 09:00 - 12:30 h

22 November 2016 | 09:00 - 15:00 h

23 November 2016 | 09:00 - 12:30 h

This participatory workshop addresses the interpretation and credibility of model results and the representation of data. You will critically assess numerical models and learn about their advantages and limitations in explaining complex data. The course promotes communication between observational/experimental and theoretical/modelling scientists by sorting out misconceptions and removing anxieties in asking “simple” questions. Candidates from all fields are invited to participate. Aspects of probability and statistical inference will be explained. Exemplifications include aspects of plankton dynamics and biogeochemistry.

### Contents:

#### Basics on probabilities and model-based inference

What is a conditional probability? What do I learn from experiments and field data? What is the typical probability of model results to explain data? Why and how should observations be considered for model simulations? How can numerical models help to interpret and extrapolate experimental or field data?

#### Moderated discussion

Based on the background information provided, we will perform a role-play of decision makers, based on ambiguous model results that fit coarse data. We will be concerned with “uncertainties in scientific answers” and discuss how to deal with them.

### Voices from previous participants:

*“I found particularly useful to learn how to validate a model.”*

**Venue:** t.b.a.

*ISOS PhDs have priority in our courses.*

*Child care can be provided if we have two weeks advance notice.*



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[www.futureocean.org/isos](http://www.futureocean.org/isos)