

Variations du niveau des mers actuel et passé

Sea level change on a planetary scale has occurred for as long as there have been oceans and is the result of both geological and climate processes. Observations of past change therefore provide constraints on these processes - through rates of land uplift or subsidence, or through rates of growth and decay of ice sheets, for example.

These processes provide the background signal for any modern anthropogenic contributions. This course will:

- Explore past changes in sea level, particularly for the recent geological past when the major global contributions came from the growth and decay of ice sheets and use this information to develop models for the ice sheets during glacial times.
- Examine the viscosity structure of the planet.
- Reconstruct changes in coastline configurations and their possible implications for archaeology and pre-history.
- Examine some consequences of these changes on other geophysical and geodetic observations such as the earth's rotation and satellite orbits.
- Look at what changes may be expected in the future under scenarios of climate change.

The emphasis throughout will be on the development of the underlying principles rather than on the details of the theory.