



## **Carbon sequestration: Significant for 21st century ocean carbon storage?**

**P.M. Haugan** (1), G. Alendal (2,3), L.I. Enstad (3,2), and Kristin Rygg (3,1)

(1) Geophysical Institute, University of Bergen, (2) Dept. of Mathematics, University of Bergen, (3) Bergen Center for Computational Science

Separation of CO<sub>2</sub> from fossil fuel power plants and industry followed by long term storage in geological reservoirs presently receives considerable interest in several countries as a possible contributor to climate policies. Direct storage in the deep sea is still prohibited, but recent developments in international conventions give openings for subseabed storage mainly on continental shelves. The status of key storage projects will be discussed, touching upon present uncertainties and important knowledge gaps to close. There is an urgent need to assess the risk involved in large scale CO<sub>2</sub> storage, primarily to avoid environmentally unacceptable projects. Present projects are only order 0.01 Gt C/year, but are increasing rapidly. Hence, these assessments are timely if CO<sub>2</sub> handling is to be a potential reliable and timely bridge toward a renewable energy era. A worst-case scenario will be that the net effect may be higher emissions because of false beliefs and lack of other efforts.