

***Interactive comment on “High resolution regional modeling of natural and anthropogenic radiocarbon in the Mediterranean Sea” by Mohamed Ayache et al.***

**Anonymous Referee #1**

Received and published: 13 November 2016

The authors use a high-resolution dynamical model to simulate the distribution of radiocarbon in the Mediterranean Sea. While I feel the topic is relevant and the treatment new, I would like the author would better specify different aspects treated in the paper: a) the role of the Atlantic Water: sensitivity experiments at Gibraltar should be discussed; b) the artificial modifications performed in order to simulate the EMT should be deeply discussed; c) how can convective penetration be increased in the simulations? d) overall, a more critical discussion about limitations of the model simulations should be addressed.

---

Interactive comment on Biogeosciences Discuss., doi:10.5194/bg-2016-444, 2016.