

## ***Interactive comment on “A fully coupled Atmosphere–Ocean Wave modeling system (WEW) for the Mediterranean Sea: interactions and sensitivity to the resolved scales and mechanisms” by P. Katsafados et al.***

**Anonymous Referee #2**

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This paper presents a coupled atmosphere-ocean wave limited area model setup for the Mediterranean Sea.

Although the topic is an important one and one which I consider of general interest to the readers of GMD, unfortunately, I cannot recommend publication in its present form. The work presented is sloppily put together with little regard for the work which has been done earlier in this field. Indeed, the work is wholly based on the work by Peter Janssen and his co-workers at ECMWF, but the only reference is to his earlier work (Janssen, 1991). The fact that ECMWF has operated a coupled atmosphere-wave

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forecast system since 1998 is not mentioned, and I find this inexcusable.

What is more important for the general reader is that the system presented does not appear to provide much (if any) improvement over the uncoupled model (Fig 12). Although I can understand the need for publication of a new model setup, even one which offers only marginal improvement, I do not think it is ready in its current form.

Figures are generally of poor quality and should be redone with more intelligible captions.

To salvage this paper I would want to see a much more thorough discussion of the quality of the control and coupled runs. This may require a longer integration. Proper referencing of earlier work, especially by the group at ECMWF is mandatory. The English needs to be corrected by someone proficient in professional English.

Minor comments

- p 4088 l 18: Unintelligible formula involving  $\sin \phi$
- Fig 12: No explanation to what is found in the various sub panels (a and c). Are these different buoys?

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