Review of "Wave-resolving Voronoi model of Rouse number for sediment entrainment equilibrium"

This is an interesting paper but it is not easy to review as there is a lot of condensed information. There are some questions that arise from this work.

1. The author states in the introduction that Voronoi approximations exhibit a reduction in numerical diffusion vs Delaunay meshes. The work that the author refers [1], investigates the relationship between grid alignment and diffusive errors in the context of scalar transport in a triangular, unstructured, 3-D hydrodynamic code. They conclude that the flow-aligned grids (for first order upwind advection) eliminate the lateral numerical diffusion. How is this related to the Voronoi meshes?

2. What is the cpu time that you need for the bay simulation of 8 days? What is happening, concerning he numerical diffusion, if you run for longer time?

3. The author states " Voronoi meshing has lately also been applied to oceanography with works [10, 11] mentioning different stability concerns vs. Delaunay meshes, indicating that an algorithm that might be stable on a Delaunay mesh might not necessarily be stable on a Voronoi mesh". How do you confirm the stability of your scheme on the Voronoi mesh?

4. What is the order of the scheme in space and time? What time integrator do you use? Is it possible to extend you scheme in higher dimensions? Does this have a meaning?

5. Does the solution of the sediment transport and settling happens is a coupled way in respect with the other equations? How do you account for the bed evolution?

6. Please correct reference [4]. The correct one is the [1] here. The authors refer to Chapter 8 p. 597 of Randall and Bonny but we can not find it in references.

[1] Rusty Holleman, Oliver Fringer, and Mark Stacey. Numerical diffusion for flow-aligned unstructured grids with application to estuarine modeling. Int. J. Numer. Methods Fluids, 72(11):1117–1145, 2013.