

1 Dr. Kelly:

2 Thanks for your work as Topical Editor for this manuscript.

3 1. *In the abstract and the intro, please spell out the acronym Islet (Interpolation Semi-*  
4 *Lagrangian Element-based Transport).*

5 In the abstract (lines 6–8), the sentence now reads: “We describe a finite-element ISL transport  
6 method that we call the Interpolation Semi-Lagrangian Element-based Transport (Islet) method,  
7 such as for use with atmosphere models discretized using the spectral element method.”

8 In the introduction (lines 28–29), we now write: “In this article, we describe the Interpolation  
9 Semi-Lagrangian Element-based Transport method, with the acronym stylized as “Islet” rather  
10 than “ISLET” to minimize distracting all-capitalized text.”

11 2. *Section 2.1.2: Please update the reference for Bradley (2022) if you have submitted it for*  
12 *publication. GMD wants reference “Works cited in a published manuscript should be published*  
13 *already, accepted for publication, or available as a preprint with a DOI.”*

14 Yes, that makes sense. I had hoped to have submitted the other paper by now, but another  
15 project has claimed my attention for the last several months. I have changed the text as follows to  
16 use “forthcoming article” as the means to refer to that work:

17 Lines 176–178: “We develop an ISL method that uses the *Islet bases*, summarized in Appendix  
18 A and derived in Bradley et al. (2021, Sect. 2 and 3) and a forthcoming article based on that  
19 material, to satisfy a necessary condition for stability.”

20 Lines 766–767: “Bradley et al. (2021, Sect. 2 and 3) and a forthcoming article based on that  
21 material detail the derivation of the Islet bases, while this appendix summarizes the results of that  
22 derivation for completeness.”

23 3. *Line 137: Replace “operators” with “operations”.*

24 Thanks for catching that typo.

25 4. *Section 4: You refer to “validation problems”. “Validation” generally refers to comparison*  
26 *with physical data/observations, while “verification” refers to testing the math/implementation for*  
27 *correctness. Hence, “verification problems” is a better term. Same comment in the Conclusions.*

28 I have replaced all uses of the word “verification” with “validation” and made equivalent re-  
29 placements for other parts of speech.

30 5. *Line 920: If you have a DOI for this reference, please include it.*

31 Thanks. I have updated the reference to the ESSOAr preprint citation, with DOI.

32 Thanks,  
33 Andrew Bradley