

## Interactive comment on "Technical Note: Simple formulations and solutions of the dual-phase diffusive transport for biogeochemical modeling" by J. Y. Tang and W. J. Riley

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We are very pleased to read your encouraging comments. We addressed your minor comments below.

Line 11, Page 1588: Should the second mention of steady-state soil CO2 dynamics be for soil CH4 dynamics?

Line 14, Page 1588: results?

**Response**: All these turned out to be typos during the typesetting of the discussion paper. We corrected them in the final text and will make sure they are right in the proof

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reading of the to be published version.

Equations 17a/b/c, Page 1597: Please use either commas or spaces before each "j = "Table 2: Provide Ca in units of mol m-3? (as listed in Table A1)

Response: We revised accordingly as suggested.

Figure 3: The N100 numerical solution deviates a bit from the analytical solution, is this because of the discontinuity in the source profile?

**Response**: Although we were not able to analytically show it, some numerical tests indicate the discontinuity is very likely the cause of this deviation. Probably some higher spatial resolution scheme is needed.

Interactive comment on Biogeosciences Discuss., 11, 1587, 2014.