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Date: 16 June 2015

Supplementary Material : Scaling laws for perturbations in the ocean–atmosphere system following large CO₂ emissions

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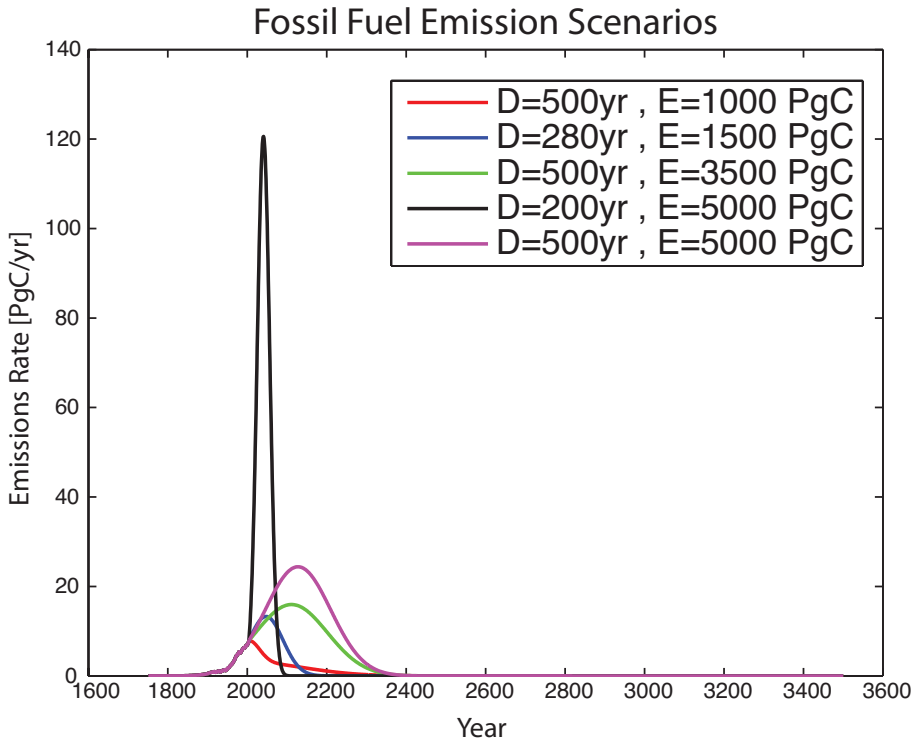


Figure 1. Anthropogenic CO₂ emission scenarios. For each scenario the perturbation is characterized by duration, D , and total size of emission, E . As in Zeebe et al. (2008), these scenarios are based on historic emission data with total emissions of 315 PgC until year 2004 with the projected future emissions being described by a single (or the sum of two) Gaussian function(s).

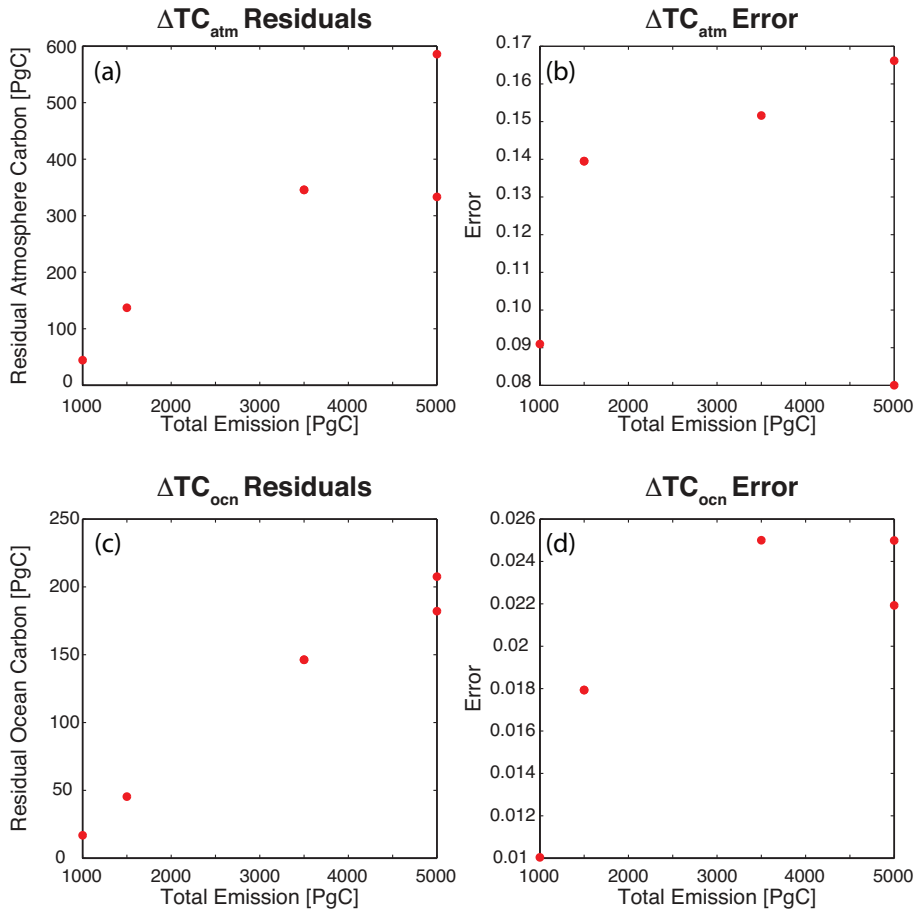


Figure 2. Comparisons between peak system response and predictions based on modern scaling laws for anthropogenic emission scenarios. **(a,c)** Residuals. **(b,d)** Error.

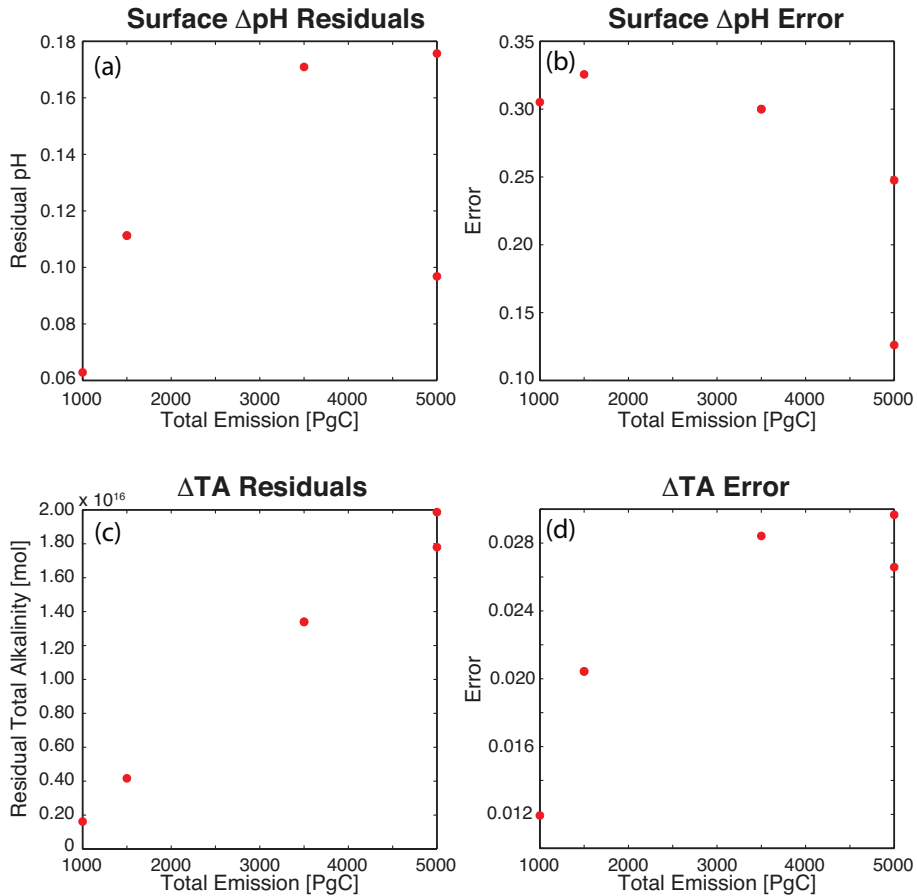


Figure 3. Comparisons between peak system response and predictions based on modern scaling laws for anthropogenic emission scenarios. **(a,c)** Residuals. **(b,d)** Error.