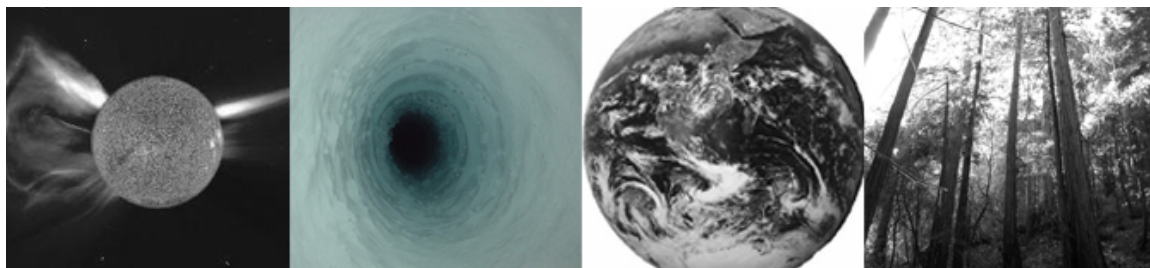


Environmental Sciences And **CREATE** Seminar Series



Understanding the environmental drivers of soil respiration & the need for isotopic measurements

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Despite a research history extending back to the early 1900s, the question of how soil respiration responds to natural climate variability and will respond to anthropogenic changes in climate remains a highly uncertain topic.

Answering this question is particularly important as soils contain significant quantities of carbon, and have the potential to create large positive feedbacks on the climate through greenhouse gas release. Modern high-resolution respiration measurement methods can provide better insight into these processes, particularly when these measurements are interpreted through more advanced model frameworks. Despite these technological improvements, bulk measurements of soil gas flux can only take us so far along the path to understanding, and where they leave off, isotopic measurements can pick up the slack.

In this presentation, I'll show the potential benefits that isotopic measurements bring to understanding soil flux, the current technological and methodological challenges and how measurement and modeling approaches can be combined to overcome them.

All are welcome.
Thursday, **April 11th**, 2013
1:15 – 2:05PM
Physical Sciences Centre 2045