

Dr. Sian Kou-Giesbrecht

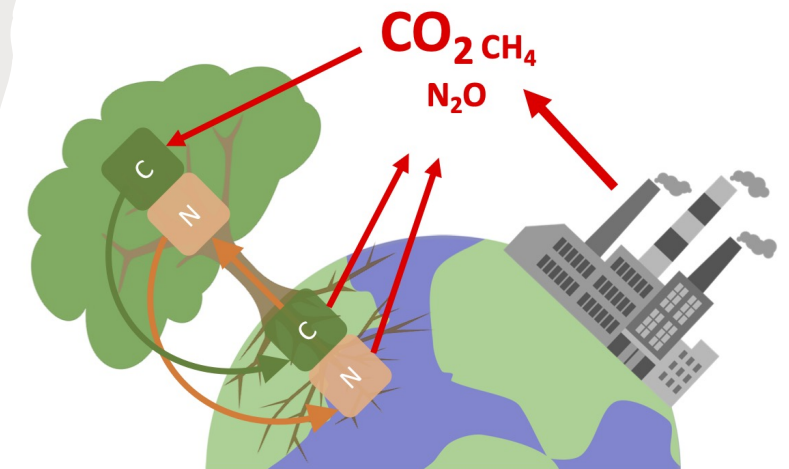
I am a new assistant professor in the Department of Earth and Environmental Sciences at Dalhousie University focused on Earth system modelling, and I'm looking for PhD students who want to join my lab!

My research focuses on Earth System Models, process-based analytical mathematical models of the Earth system, and how nitrogen limitation impacts carbon sequestration under global change. For more information on my research, see my [website](#). If you are interested in environmental modelling please reach out (sian.kougiesbrecht@dal.ca)!

I am looking for PhD students who are interested in the following research directions:

1. Improving analytical mathematical models of how nitrogen and carbon cycling are modelled in the Canadian Earth System Model developed by Environment and Climate Change Canada (modelling boreal nitrogen limitation, wildfire nitrogen emissions, permafrost nitrogen dynamics, etc.)
2. Understanding the influence of nitrogen limitation on simulated future trajectories of carbon sequestration as well as simulated future trajectories of nitrogen losses across terrestrial and Earth System Models.

Students with experience in analytical modelling, statistical modelling, machine learning, high performance computing, and/or environmental science are especially encouraged!



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