The Changing Face of the Nitrogen Cycle

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Nitrogen is an essential nutrient for life. It enjoys a rich and varied geochemistry whose interaction with other element cycles strongly influences its chemical form and availability as a nutrient. Both through evolution and the changing chemistry of the surface environment, the nature and rates of these interactions have changed through time, strongly influencing nitrogen availability and the productivity of the planet. At the same time, the geochemistry of nitrogen is tightly controlled by countless organisms whose place in the nitrogen cycle, level of activity, and biochemical function are only now being appreciated. My talk is an introduction to the scope and purpose of the meeting, where I will also point to some of the recent exciting highlights in the microbial ecology, geochemistry and biochemistry of the nitrogen cycle.