**CSSS_06: Tightening nitrogen cycle for more resilient agricultural systems**

**Co-chairs:** Mehdi Sharifi[1] and Judith Nyiraneza[2]

**Conveners:** Noura Ziadi, Mervin St. Luce, Keith Reid

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**Session Description**

Nitrogen (N) is the primary nutrient limiting plant growth throughout the world, but over-use of N has been implicated in numerous environmental impacts. This session aims at presenting advances in understanding N cycle, monitoring and modeling of N in field and regional scales, evaluating the impact of anthropogenic drivers on N dynamics, smart N management technology, and integrated decision-support tools under various agricultural systems. Communications that could be part of this session include but are not limited to: strategies to improve N use efficiency, mitigating N losses through leaching or gaseous emissions, impacts of management practices (i.e. organic or mineral N fertilization, soil amendments, tillage regimes, crop rotation/sequences, cover crops) on N cycling, catchment/regional N budgets, N cycle relationship with soil health and ecosystem services, and N cycling in livestock-cropping systems.

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**Joint Session Submission:** none