

**2019 AGU Fall Meeting Session call for submissions:
GC069: Quantifying Nutrient Budgets for Sustainable Nutrient Management**



Nutrients, such as nitrogen (N) and phosphorus (P), are critical for net primary productivity in agricultural and non-agricultural ecosystems, and are consequently important for food security and climate change mitigation. However, rising nutrient inputs to agricultural production and to the biosphere have severe environmental consequences. Quantifying nutrient budgets, including inputs and outputs of a defined system or a spatial boundary, is an essential step towards sustainable nutrient management, and also provides critical inputs to agronomic, biogeochemical, and climate models. Therefore, this session calls for research efforts on quantifying, analyzing, and/or projecting nutrient budgets on various system levels (e.g., crop and livestock production systems, integrated agro-food systems, natural systems subject to atmospheric deposition) and spatial scales (e.g., farms, watersheds, nations). This session aims to provide an opportunity to assess advances and challenges in existing nutrient budgeting methods and databases, and to discuss innovations for better quantification of nutrient budgets.

This session is co-sponsored by the American Geophysical Union (AGU), the Ecological Society of America (ESA), and the Soil Science Society of America (SSSA). A special issue across five AGU journals is currently organized for this topic (more details: see [here](#)).

This session was selected for an exciting **new eLightning format**, which includes 3-minute lightning talks followed by an interactive electronic poster session. Click [here](#) and then select “session formats” to learn more about this new eLightning format and to see examples from last year.

Additional Session Information

Conveners: Eric A. Davidson (*University of Maryland Center for Environmental Science*), Xin Zhang (*University of Maryland Center for Environmental Science*), Jill Baron (*US Geological Survey*), Kate Tully (*University of Maryland College Park*)

Time and location for AGU 2019: Dec. 9-13, San Francisco, CA, USA

Submission Site: <https://agu.confex.com/agu/fm19/prelim.cgi/ModuleProgramBook/0>

Submission Deadline: **Wednesday, 31 July 23:59 EDT**

Session ID: 81780

Section/Focus Group: Global Environmental Change

Cross-Listed: Atmospheric Sciences, Biogeosciences, GeoHealth, Societal Impacts and Policy Sciences

Index Terms: [0402 Agricultural systems](#); [0470 Nutrients and nutrient cycling](#); [1615 Biogeochemical cycles, processes, and modeling](#); [1630 Impacts of global change](#)

Contact: edavidson@umces.edu; xin.zhang@umces.edu; ktully@umd.edu