



Announcement of a Bachelor's or Master's thesis on the
Effect of plant litter quality and N addition on mineralization and
denitrification

In the framework of the project

Denitrification in Agricultural Soils: Integrated control and Modelling at various
scales (DASIM)

Addition of plant litter to agricultural soils can increase emissions of CO₂, NO, N₂O, and N₂. While litter C:N ratio controls whether N is mineralized or immobilized during degradation, the chemical quality of C compounds controls overall degradability of plant litter.

To test the interaction of C and N availability on decomposition dynamics and gaseous emissions, laboratory incubation studies will be conducted under fully controlled condition. Measurement parameters include analysis of soil mineral N and water-extractable organic C, and fluxes of CO₂, NO, N₂O, and N₂. Furthermore, stable isotope methods will be applied to differentiate between processes contributing to N₂O formation.

Your responsibilities:

- Laboratory work including gas and soil analysis
- Evaluation and interpretation of results
- Writing your thesis

Working language is either **German or English**, Start in **October 2020**

If you're interested, please send an email describing your background and your motivation.

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