PhD position: FAIR data for Field Phenotyping – developing a data model for diverse field phenotyping data

Contact

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Please contact U. Rascher directly expressing your interest in the PhD position. Feel free to discuss the background of this position before sending your formal application.

Project description

This PhD project is embedded in the recently selected DFG project FAIRAgro (www.fairagro.net). The PhD candidate will work in the use case 5 of this consortium and will develop in cooperation with other scientists of the consortium a novel data model for real world field phenotypic data. The candidate will have access to an already existing large dataset of field data, which was acquired during the past years in the frame of the Excellence Cluster PhenoRob (www.phenorob.de). He/she will review the data and aim to develop different categories of data. He/she will develop a meta-data model that is compliant with existing standards for phenotypic data and which shall be compliant with the FAIR data concepts. He/she shall scientifically describe the data model and work with scientists of the consortium to test and implement these concepts within the larger framework of FairAgro.

The PhD candidate shall have the opportunity to scientifically publish the concepts behind the data model and he/she will be in the lead of implementing the concept into the operational frame of FairAgro. Thus this PhD project has a basic research and applied dimension and will enable the candidate to develop his profile in this emerging discipline.

Contractual conditions:

The candidate will receive a 3-year PhD contract at IBG-2 at Forschungszentrum Jülich and will be enrolled as PhD student at Bonn University. He/she will be associated to either the graduate school at Forschungszentrum Jülich or Bonn University and will have the benefits of these graduate school. The Forschungszentrum Jülich (www.fz-juelich.de) is one of the largest research centers of Europe and offers a wide range of training and qualification programs.

Background and interests of applicant

A Master degree in plant sciences, agriculture, mathematics, informatics, spatial sciences, ecology or other related disciplines with an interest to work at the interface between data science, field phenotyping and optical remote sensing. The applicant shall have an interest in working with existing data and shall have the ability to develop and implement concepts for novel and FAIR data structures based on existing field phenotyping data. Thus he/she must have a solid background in relevant programming languages and be familiar with state-of-the-art data concepts. Very good English communication and writing skills are mandatory. Knowledge of German can be advantageous.