



2nd International Plant Phenotyping Symposium

“Toward plant phenotyping science: challenges and perspectives”

Jülich, 5-7 September 2011

Organisms develop by complex interactions of genotypes and environments. The need to characterize the phenome to understand health, disease or yield performance and evolutionary fitness has been recognized in many biological disciplines, yet it lags behind our ability to characterize the genomes.

Plant phenotyping has emerged as a central field of research in academia and industry. A first challenge is establishing robust protocols and screening methods integrating non-invasive, automated quantification of structural and functional traits. Additional goals are achieving high-throughput and high-content information using appropriate experimental designs to establish links between controlled, semi-controlled and field scenarios. These efforts require parallel development of novel technologies of sensors, and algorithms for automation of analyses. In addition, data and meta-data need to be captured within comprehensive data management frameworks enabling mining and modeling approaches, and integration with other data types. Thus, state-of-the-art plant phenotyping is more than a combination of techniques; it rather develops into a scientific field that has the aim to accurately quantify phenotypic traits prognostic of plant performance in agricultural settings.

Focusing on these themes and providing excellent networking opportunities between users and experts in technologies, the 2nd Plant Phenotyping Symposium will be held at the Forschungszentrum Jülich September 5-7, 2011. Speakers are encouraged to present integrated views identifying perspectives and challenges, and prioritizing possible working solutions. There will be ample time in the program for interaction and discussion among speakers, poster presenters and other participants. In addition to invited speakers, submitted abstracts will be selected for short presentations.

Preliminary sessions themes

- Imaging solutions for root, shoots and canopy phenotypic traits
- Novel sensors technologies for plant phenotyping
- Data management and analysis pipelines
- Data modeling and environmental simulation
- Development of standards and best practices for plant phenotyping
- Infrastructure for plant phenotyping

Conference format and planned events

- Two and a half days of presentations (invited speakers, selected abstracts) organized in dedicated sessions
- Poster session
- Visit of Jülich Plant Phenotyping Center (JPPC) facilities at Plant Sciences Institute – Forschungszentrum Jülich
- Conference dinner

Organization roadmap

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| • Declare intention to participate | from now on |
| • Conference website launch | March 15 th |
| • Preliminary program and list of invited speakers | March 30 th |
| • Opening registration and call for abstracts | April 1 st |
| • Abstract submission deadline | June 15 th |
| • Final conference program | July 15 th |

Contact

For preliminary inquiries and to declare your intention to participate, please send us a message at the conference mailing list: phenosymp2011@fz-juelich.de.

We will collect this information for organizational purposes only and for keeping you informed about the conference roadmap: at this stage no obligation to participate is implied, and no registration is possible yet.

Scientific organizing committee: Fabio Fiorani, Roland Pieruschka, Hendrik Poorter, Uli Schurr

Logistics and local organizing committee: Andreas Müller; Corporate Communication
Forschungszentrum Jülich

