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第19屆國際植物學大會 植物表型分会场

Plant Phenotyping Sessions



T5-03 State-of-the-art phenotyping: deep, high-throughput and field

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T5-25 Phenotyping beyond technology - approaching real world problems

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Call for Abstracts

The Call for Abstracts opened on 15 Sept. 2016 and will close after **15 Jan. 2017 (for oral presentations)** and **15 Feb. 2017 (for posters and abstracts)**. Anyone who expects to present their study in IBC 2017 can submit an abstract using the online abstract submission system on the website.

摘要征集截止日期:

- 口头报告: 2017年1月15日
- 学术墙报: 2017年2月15日

所有的摘要都需要通过第19届国际植物学大会官方网站提交。

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分会场介绍

Session summaries

T5-03: State-of the art phenotyping: deep, high-throughput and field

Plant phenotyping science has become a central field of research and application in academia and industry. The discipline provides a nourishing ground for the development of new phenotyping platforms and methods. New challenges such as the identification of novel traits, establishment of robust protocols and screening methods, which integrate non-invasive, automated high throughput measurement of relevant plant traits both under controlled greenhouse and field scenarios arise throughout this development. Advancement of novel sensors and approaches for automated measurements that are integrated in a comprehensive data management and linkage framework are required. Plant phenotyping is developing as scientific field that has the aim to accurately quantify phenotypic traits, to give valuable basis for prognostic plant performance in the field, driven by the demand of users, who require relevant information on the plant-environment interaction. **In this session, we will focus on the new technologies and approaches applicable for deep phenotyping as well as high throughput phenotyping under controlled and field conditions and, data integration and management.**

T5-25: Phenotyping beyond technology - approaching real world problems

Food and biomass production has to be substantially increased within the next decades to match the growing demand for human nutrition and bioindustries (FAO, World Bank, Royal Society). This is particularly challenging in times of climate change with no additional or reduced arable land (IPPC reports). Today's breeding approaches produce typically about 1% yield increase per year for key crops, which is far below the improvement required to meet increasing global demand. Sustainable intensification of crop production is a major challenge, which requires designing high yielding varieties adapted to contrasting environmental conditions. While genotyping has been industrialized and can be performed at affordable cost, the major challenge is to analyze the performance of genotypes under diverse environmental conditions and associate them with the genome. Thus, multi-scale plant phenotyping, i.e. quantitative assessment of structural and functional plant traits has become the bottleneck to provide the physiological and genetic basis of plant growth and performance for its translation into crop improvements. **In this session, we will focus on the utilization of plant phenotyping approaches to crop improvement to support breeding and plant productivity under diverse environmental conditions.**



Venue & Hotel Information

The conference will be held at the Shenzhen Convention & Exhibition Center (深圳会展中心), part of the symposia are held at the Sheraton Shenzhen Futian Hotel (深圳喜来登酒店). They are located in the downtown area of Shenzhen, easily accessible by all sorts of transportation means from any corner of the city.