Special Issue

Plant Morphology and Function, Geometric Morphometrics, and Modelling: Decoding the Mathematical Secrets of Plants

Message from the Guest Editors

The quantification of the morphological characteristics of plants by establishing mathematical models, especially geometric models and statistical models, is an important research method in the field of plant morphology.   Similarly, it is important to study the functional properties of plants at large spatial scales to help us better understand how elements of plant morphology adapt to environmental changes. Luckily, ten years ago, a universal geometric equation created by was proposed. This equation can be used to describe universal natural shapes, especially symmetrical shapes. Moreover, this model provides a strong tool for uncovering the secrets of plant development and evolution. This Special Issue of Plants is poised to introduce new case studies and novel approaches to determine the morphological characteristics of different plants and their environmental adaptability strategies. In addition, this Special Issue will also focus on quantifying the geometry of the natural shapes of plants to show their survival and evolutionary traits.

Guest Editors

Dr. Jie Gao

Dr. Weiwei Huang

Prof. Dr. Johan Gielis

Dr. Peijian Shi

Deadline for manuscript submissions

closed (20 April 2023)

MDPI

Plants

mdpi.com/journal/
plants

About the Journal

Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

Editor-in-Chief

Prof. Dr. Dilantha Fernando
Department of Plant Science, University of Manitoba, Winnipeg, MB
R3T 2N2, Canada

Author Benefits

Open Access:
free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:
indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

Journal Rank:
JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)

MDPI