



## Floral Symmetry

Guest Editor:

**Prof. Dr. John H. Graham**

Department of Biology, Berry  
College, Mount Berry, GA 30149,  
USA

Deadline for manuscript  
submissions:

**closed (31 May 2019)**

### Message from the Guest Editor

Dear Colleagues,

Floral symmetry of the angiosperms (flowering plants) occupies a special place in the botanical sciences. Flower symmetry has an important role in the classification of angiosperms. Flowers and inflorescences can be actinomorphic (dihedral and rotational symmetry), zygomorphic (mirror symmetry), or possessing helical (spiral) symmetry, fractal symmetry, or no symmetry at all. The symmetry of a flower or inflorescence is related to how the flower is pollinated; insect- or vertebrate-pollinated flowers tend to be actinomorphic or zygomorphic, while wind pollinated flowering heads tend towards fractal symmetry. Bees and other pollinators have clear preferences for particular symmetries and have a major role in driving the evolution of particular symmetries. The genetics of flower symmetry is a particularly active area of research, with several genes implicated, including *CYC* and *DICH*. Another active area of research is the fluctuating asymmetry of flowers, as an indicator of developmental noise.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Sergei Odintsov

1. ICREA, 08010 Barcelona, Spain  
2. Institute of Space Sciences  
(IEEC-CSIC), C. Can Magrans s/n,  
08193 Barcelona, Spain

## Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

## Author Benefits

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

**High Visibility:** indexed within SCIE (Web of Science), Scopus, CAPus / SciFinder, Inspec, Astrophysics Data System, and other databases.

**Journal Rank:** JCR - Q2 (Multidisciplinary Sciences) / CiteScore - Q1 (General Mathematics)

## Contact Us

Symmetry Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/symmetry  
symmetry@mdpi.com  
X@Symmetry\_MDPI