PhD position in statistical population genetics

A PhD position is available for 3 years in the new group of Dr. Stefan Laurent at the Department of Comparative Genetics and Development MPI for Plant Breeding Research in Cologne, Germany. We are seeking a candidate with a strong interest in population genetics, statistical genetics, bioinformatics, and statistical inference to join our group starting in October 2017. The successful candidate will have an M.Sc. in a related discipline (ecology and evolution, population or statistical genetics). Students with solid skills in R or other programming languages are especially encouraged to apply.

Our group will be focused on studying demographic and adaptive processes using modeling and statistical inference approaches (Duchen et al 2013, Laurent and Pfeifer et al. 2016, Pfeifer, Laurent and Sousa et al. *submitted*). The successful candidate will work on the development of new statistical methods and tools to address the following problems:

- 1) The joint estimation of demographic and selective parameters using genome-wide polymorphism datasets
- 2) The inference of demographic parameters in the presence of skewed offspring distributions (Irwin et al 2016).

Potential for applications and collaboration exist with our colleagues from the group of Prof. Miltos Tsiantis, the Director of the Department who recently sequenced full genomes of the selfing plant *Cardamine hirsuta*.

Applications should be sent before the 15th of October to Stefan Laurent (<u>laurent@mpipz.mpg.de</u>) together with details of two academic referees.

Bibliography

Duchen et al 2013: http://www.ncbi.nlm.nih.gov/pubmed/23150605

Laurent and Pfeifer et al. 2016: http://www.ncbi.nlm.nih.gov/pubmed/26363411

Irwin et al. 2016: http://www.ncbi.nlm.nih.gov/pubmed/27649621

Pfeifer, Laurent, and Pfeifer et al.

(bioarxiv): http://www.biorxiv.org/content/biorxiv/early/2017/06/20/152694.full.pdf