The **Vienna School of Mathematics (VSM)** is a joint graduate school of the mathematics faculties of the **University of Vienna** and the **TU Wien**. The VSM is devoted to top-level PhD education in all branches of mathematics. It fosters intra- and interdisciplinary scientific cooperation and networking among students and advisors and aims at increasing the international visibility of the Vienna area as a center for mathematics.

The VSM currently announces a PhD position in the area of

algebraic and enumerative combinatorics
(University of Vienna, Supervisors: C. Krattenthaler, F. Schreier-Aigner)

Symmetric polynomials are intriguing algebraic objects which appear in the interplay of many fields such as representation theory, algebraic geometry, combinatorics, probability or statistical physics. For example, characters of classical groups turn out to be symmetric polynomials which can also be interpreted as multivariate generating functions of certain combinatorial objects. As a consequence, many important properties of the symmetric polynomials can be obtained by applying combinatorial methods. One aim of this project is to ``reverse'' this approach and study symmetric polynomials obtained as multivariate generating functions and thereby contribute to the understanding of the combinatorial objects. The objects of our interest include, but are not limited to plane partitions, alternating sign matrices and symmetry classes thereof. This aim will be complemented by studying certain combinatorial properties of these objects directly.

The basic requirement for this position is a Master degree (or equivalent) in Mathematics with a focus on combinatorics, or related fields.

The advertised position is associated with the Faculty of Mathematics of the **University of Vienna** in the Research Group on Combinatorics of Christian Krattenthaler and Florian Schreier-Aigner. The successful candidate(s) will become a member/members of the Vienna School of Mathematics and is/are expected to actively contribute to its activities. The extent of employment is 30 hours per week. The position will start on January 1, 2024 or a negotiable date thereafter.

The VSM values diversity and specifically encourages candidates from underrepresented groups to apply.

Application Requirements and Procedure

The candidates must have a master degree (or equivalent) in Mathematics at the moment the PhD position starts. The application documents should contain a letter of motivation; the scientific CV with publications list; higher education certificates/diplomas; and letter(s) of recommendation preferably sent directly to florian.schreier-aigner@univie.ac.at by the person writing the letter. Applications have to be sent to florian.schreier-aigner@univie.ac.at, if possible in a single PDF file. The deadline for applications is **November 15, 2023.**