

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

**Differential geometry with a focus on parabolic geometries
(University of Vienna, Supervisor: A. Cap)**

The theory of parabolic geometries is an active area of research in differential geometry in which tools from Lie theory and representation theory play an important role. Many of the results deal with several different types of geometric structure simultaneously, inspiration comes from special cases like conformal and projective structures, CR structures, path geometries and various types of generic distributions. The concrete thesis project will be developed jointly with the successful applicant.

Good background on the modern language of differential geometry (in particular, various types of fiber bundles and concepts of connections) is a basic requirement for the position. Prior experience with the study of geometric structures, in particular Cartan geometries or some examples of parabolic geometries, e.g. the ones mentioned above, is an advantage but not strictly required. Similarly, background on the theory of Lie groups and Lie algebras, in particular working knowledge of finite dimensional representation theory of semisimple Lie algebras, will be advantageous but not strictly required.

The advertised position is associated with the Faculty of Mathematics of the **University of Vienna** in the Research Group on Differential Geometry of Prof. Dr. Andreas Cap. The successful candidate will become a member of the Vienna School of Mathematics and is expected to actively contribute to its activities. The extent of employment is 30 hours per week. The position will start on October 1, 2020.

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. Applications have to be sent to office@vsmath.at. The deadline for applications is **June 15, 2020**.