



## Mathematics and CS Seminar

# GeomTop Seminar: "What can geometry teach us about topological drawings of graphs?"

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Host:

A straight-line drawing of a graph, compared to a general drawing, is not just more aesthetically appealing but, from a practical point of view, it is easier to store it in a computer. This drives to a natural question: when can we convert a topological drawing into an equivalent geometric one? In 1988, Thomassen completely answered this question for drawings in which every edge is crossed at most once (generalizing the well-known Fary's Theorem). Thomassen's answer is by means of forbidding two drawings. Following Thomassen's result, I will talk about interesting classes of geometric graph drawings that can be characterized in terms of forbidding a set of subdrawings, and how this approach can bring new insights on tackling general graph drawing problems. This talk is mainly based on joint collaborations with Julien Bensmail, Dan McQuillan, Bruce Richter, Gelasio Salazar and Matthew Sunohara.

**Wednesday, April 17, 2019 01:00pm - 02:15pm**

Mondi Seminar Room 3, Central Building



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: <https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.