

Vortragsankündigung

Mittwoch, 13. November 2019, 11.15 Uhr

Seminarraum I (JAK2AOG1.33), Jakob-Haringer-Straße 2a

Ao.Univ.-Prof. Dr. Martin HELD

FB Computerwissenschaften,
Computational Geometry and Applications Lab, PLUS

“Computational Geometry for Solving Real-World Problems”

Computational geometry is the study of the design and analysis of efficient algorithms for solving problems with a geometric flavor. The methodologies of computational geometry allow one to provide theoretical insights into and solutions of numerous geometric problems that arise in a large number of fields, ranging from science and technology to the humanities. In this talk we provide a brief introduction to a few key concepts and data structures of computational geometry: We will sketch Voronoi diagrams, straight skeletons and (Delaunay) triangulations. Based on work carried out at the Computational Geometry and Applications Lab, their practical usefulness will be highlighted by hinting at several real-world problems that can be solved quite easily by resorting to these structures. Although work on computational geometry requires decent background knowledge in both computer science and mathematics, this talk will not be math-heavy! Figures or animations that appeal to basic geometric intuition will be used to convey the concepts rather than formal definitions. Hence, everybody who has an honest interest in geometry and geometric algorithms is encouraged to attend!