Technion-Israel Institute of Technology

Computer Science Department

Center for Graphics and Geometric Computing

CGGC Seminar

Prof. Rephael Wenger

The Ohio State University

Intro to Morse Theory, Morse-Smale Complexes, and Discrete Morse Theory

Morse Theory, Morse-Smale complexes, and Discrete Morse Theory are techniques for analyzing scalar fields and topology induced by those fields. Morse Theory provides a way of analyzing topological spaces by analyzing scalar functions on those spaces. Morse-Smale complexes are segmentations of spaces based on the application of Morse Theory to scalar functions. Discrete Morse Theory is a discrete version of Morse Theory that can be used to create "discrete" Morse-Smale complexes, and provide segmentions images or volumes. I will give an (informal) introduction to Morse Theory, Morse Smale-Complexes and Discrete Morse Theory.

Rephael Wenger is a professor in the computer science and engineering department of The Ohio State University where he works on geometric modeling, mesh generation, geometric algorithms and scientific visualization.

The lecture will be held on Thursday, 16.02.2023, at 11:30, Taub 401

הזמנה זו מהווה אישור כניסה עם רכב לטכניון