



Technion-Israel Institute of Technology
Computer Science Department
Center for Graphics and Geometric Computing



CGGC Seminar – M.Sc. Talk

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Functional Tracing of Discrete Vector Fields

We propose a method for tracing the flowlines of a discrete tangent vector field on a triangle mesh. Our method makes use of functional vector fields, namely modeling of vector fields as operators acting on functions. In particular, we use the recently proposed adjoint representations of directional derivatives. Our method is characterized by making use of mostly global solutions, as opposed to iterative local algorithms that trace the vector triangle-by-triangle. We compare our approach to analytical solutions in cases where these are known, and to an iterative tracing algorithm. Finally we use our method for the simple, robust and efficient visualization of discrete tangent vector fields on triangle meshes.

The lecture will be held on Wednesday, 08.01.2020, at 16:00, Taub 337

הזמנה זו מהווה אישור כניסה עם רכב לטכניון