



Colloquium

Computational modeling and fabrication with textiles

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Host: Samara Ren

Textile materials are ubiquitous in traditional manufacturing, and many everyday objects most notably garments and footwear are made of fabric. Fabrication with textiles supplies a plethora of interesting mathematical and engineering problems of high importance and impact in the real world, given that textile and fashion are one of the largest industries and contributes significantly to global economy and environmental conditions. Taking the perspective of geometry processing and computer graphics, in this talk I will discuss the interplay between the 2D nature of fabric and the goals of 3D shape modeling with such material, focusing primarily on garment design and fabrication. I will discuss the exciting role geometric computing can play in this domain and present some recent work of my research group that touches on theoretical and applied aspects of woven fabric modeling, garment construction and textile based fabrication.

Tuesday, April 14, 2026 11:00am - 01:00pm

Raiffeisen Lecture Hall, Central Building



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