

# MICHELE VIDULIS

PhD Student @ EPFL | Computer Science

✉ [michele.vidulis@epfl.ch](mailto:michele.vidulis@epfl.ch)

👤 [Website](#)

🌐 [LinkedIn](#)

🐙 [GitHub](#)

## RESEARCH INTERESTS

Optimization, Physics-Based Simulation, Inverse Problems, Computational Design and Fabrication, Computer Graphics

## SELECTED PUBLICATIONS

### C-Tubes: Design and Optimization of Tubular Structures Composed of Developable Strips

**Michele Vidulis\***, Klara Mundilova\*, Quentin Becker\*, Florin Isvoranu, Mark Pauly  
*ACM Transactions on Graphics (SIGGRAPH 2025) – Best Paper Award (Honorable Mention)*

### Tencers: Tension-Constrained Elastic Rods

Liliane-Joy Dandy\*, **Michele Vidulis\***, Yingying Ren, Mark Pauly  
*ACM Transactions on Graphics (SIGGRAPH Asia 2024)*

### Computational Exploration of Multistable Elastic Knots

**Michele Vidulis**, Yingying Ren, Julian Panetta, Eitan Grinspun, Mark Pauly  
*ACM Transactions on Graphics (SIGGRAPH 2023)*

\*equal contribution

## RESEARCH EXPERIENCE

2021 - Present	<b>PhD Student, Geometric Computing Laboratory, EPFL</b> Physics-based simulation and computational design	Advisor: Prof. <b>Mark Pauly</b>
Spring 2025	<b>Research intern, Disney Research   Studios</b> Real-time neural simulation	Advisors: Dr. <b>Vinicius Da Costa De Azevedo</b> , Dr. <b>Jingwei Tang</b>

## EDUCATION

2019 - 2021	<b>MSc, EPFL</b> Computational Science and Engineering (GPA: <b>5.8/6</b> )
2018 - 2019	<b>MSc, Politecnico di Milano</b> Computational Science and Computational Learning (GPA: <b>29.7/30</b> )
2015 - 2018	<b>BSc, Politecnico di Milano</b> Mathematical Engineering (GPA: <b>29.4/30</b> )

## SELECTED PROJECTS

Fall 2024	<b>Neural Latent-Space Physical Simulation</b> Reduced order modeling for efficient physics-based simulation	Student project, advisee: <b>Antoine Tran</b>
Spring 2024	<b>Smooth-Rolling Knots</b> Simulation and geometric optimization of space curves with smooth rolling behavior Published at <i>Bridges 2025: Mathematics and the Arts</i>	Student project, advisee: <b>Max Brodeur</b>
Spring 2020	<b>Topology Optimization for 3D Printing</b> FEM-based fabrication-aware inverse design of compliant elastic structures	Geometric Computing Laboratory (EPFL), Prof. <b>Julian Panetta</b>
Fall 2019	<b>Anomaly Detection in Energy Consumption Time Series</b> Statistical analysis of time series and design of problem-specific anomaly detection metrics Published at the <i>International Conference on Applied Energy 2020</i>	LESO-PB (EPFL), Dr. <b>Roberto Castello</b>
Spring 2019	<b>Machine Learning for Stabilization of Advection-Diffusion PDEs</b> Optimal stabilization of numerical PDEs via neural networks	MOX (PoliMi), Prof. <b>Luca Dedè</b>
Spring 2018	<b>A Mathematical Model for Traffic Jams</b> Fluid-based traffic simulator modelling shock waves	BSc Thesis, MOX (PoliMi), Prof. <b>Lorenzo Valdettaro</b>

## TEACHING

Geometric Computing, Computer Graphics, Theory of Computation, Advanced Information and Computation

## AWARDS and HONORS

2024	<i>EPFL Teaching Assistant Award</i>
2021	<i>EPFL EDIC Fellowship</i>
2019 - 2020	<i>EPFL Excellence Fellowship</i>
2015 - 2019	<i>PoliMi Student with Particularly High Merit (GPA &gt; 29/30)</i>
2015	<i>PoliMi Best Freshmen Award</i>