

Haptic Lattice Experience



Motivation and Relevance

- Exploring digital solutions to visualize and physically feel mechanical behavior of AM lattice structures
- Offers a tool for product designers and engineers to evaluate comfort and mechanical response before production

Approach

- Integration of a digital design configurator with a VR and haptic feedback system
- Users interact with virtual lattice models and experience variable stiffness through haptic gloves.

Results

- Enables more intuitive interaction with lattice designs through real-time haptic feedback.
- Improves user engagement and understanding of mechanical behavior in digital design environments.
- Demonstrates the feasibility of perceiving virtual stiffness variations in real time.

Research Area

- Digital Material, Virtual Manufacturing Environment

Partners

Ministerium für Wirtschaft, Industrie, Klimaschutz und Energie des Landes Nordrhein-Westfalen



Picture



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