



Факультет математики и компьютерных наук
Санкт-Петербургский государственный университет

КОЛЛОКВИУМ

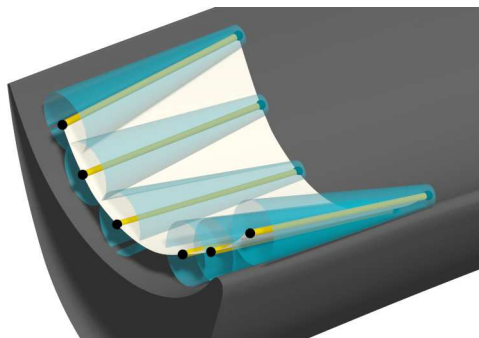
четверг 26 ноября 18:15, канал Zoom 958-115-833



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Characterizing Envelopes of Cones

Motivated by applications in engineering, we provide characterizations of surfaces which are enveloped by a one-parametric family of congruent cones. As limit cases we also address developable surfaces and ruled surfaces. The characterizations are higher-order nonlinear PDEs generalizing the ones by Gauss and Monge. In process we reconstruct the positions of the cones for a given envelope. The methodology is based on the isotropic model of Laguerre geometry, which transforms an envelope to a surface containing a special conic through each point. Most of the talk is explained in figures and is accessible to undergraduate students. The work was prepared within the framework of the Academic Fund Program at the National Research University Higher School of Economics (HSE) in 2018-2019 (grant N18-01-0023).



Приглашаются все желающие!