

PHYSICAL COLLOQUIUM INVITATION

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speaks

the Hyperloop Team Oldenburg/Emden

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about

Ground based transportation at the speed of sound

Introductory words: Prof. Dr. Walter Neu, Engineering Physics



A vehicle design was developed to fit a new transportation system, the Hyperloop. Taking part in the international open competition initiated by SpaceX, the conceptual and detailed designs of a prototype vehicle were created by the HyperPod team U Oldenburg/HS Emden/Leer.

The design was developed to operate in a low pressure environment and with scalability to near sonic speeds. The design process was followed from the initial conditions and assumptions to conceptual design, detailed design and later validation and virtual prototyping.

To approach the problem, the system was divided in several working subsystems which were individually optimized to comply with the requirements of a predetermined test track and minimize the overall cost of building a fully functional prototype. The virtual prototype was developed using CAD software. The aerodynamics of the design were tested using CFD software. Vibrational characterization of the main structures was carried out. Static and dynamic loading cases were studied.

All interested persons are cordially invited.

Sgd. Prof. Walter Neu