

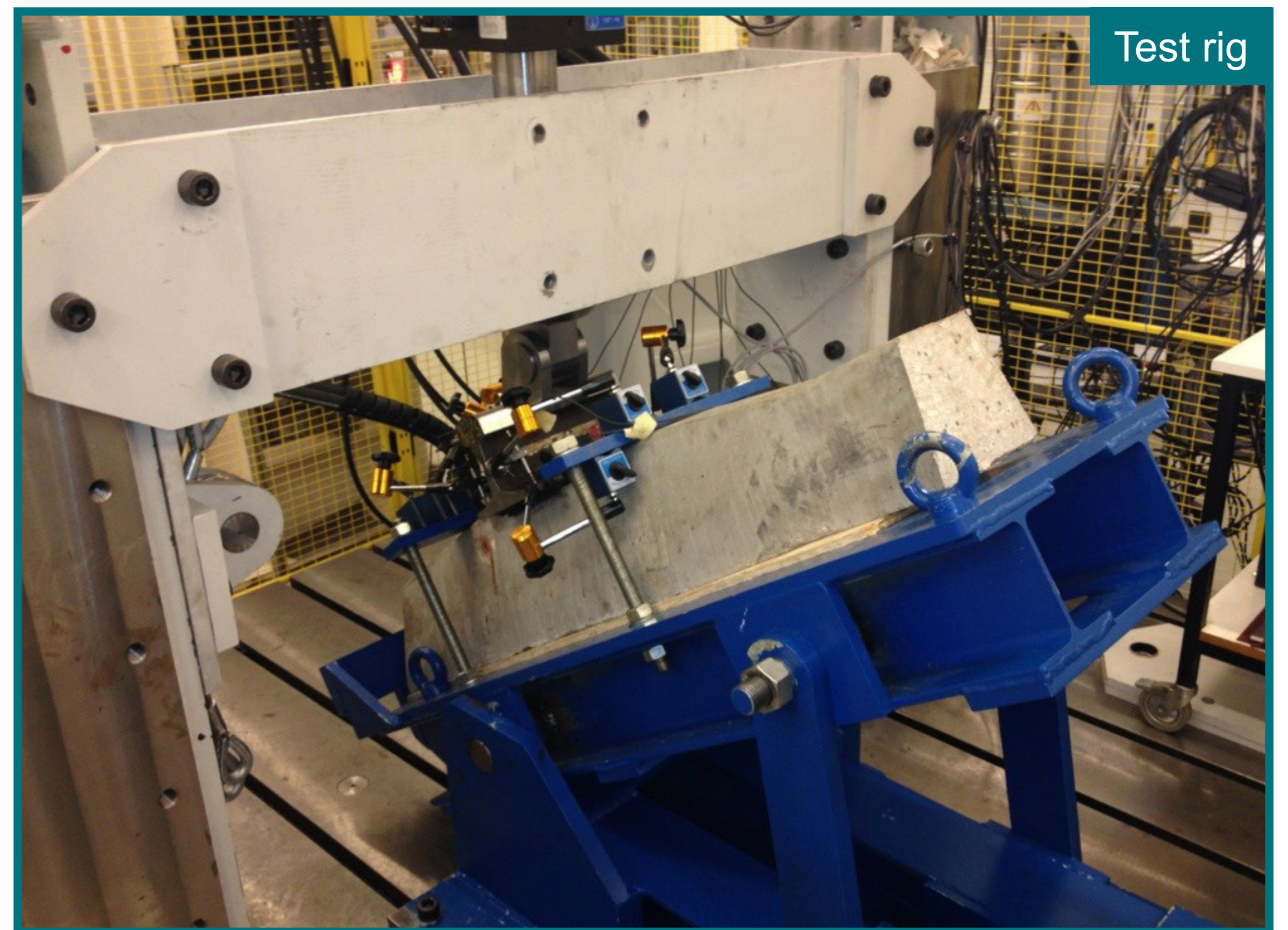
Component Testing

Jürgen Föttinger, Gerald Pinter

Dynamic behaviour of elastomeric rail mounts

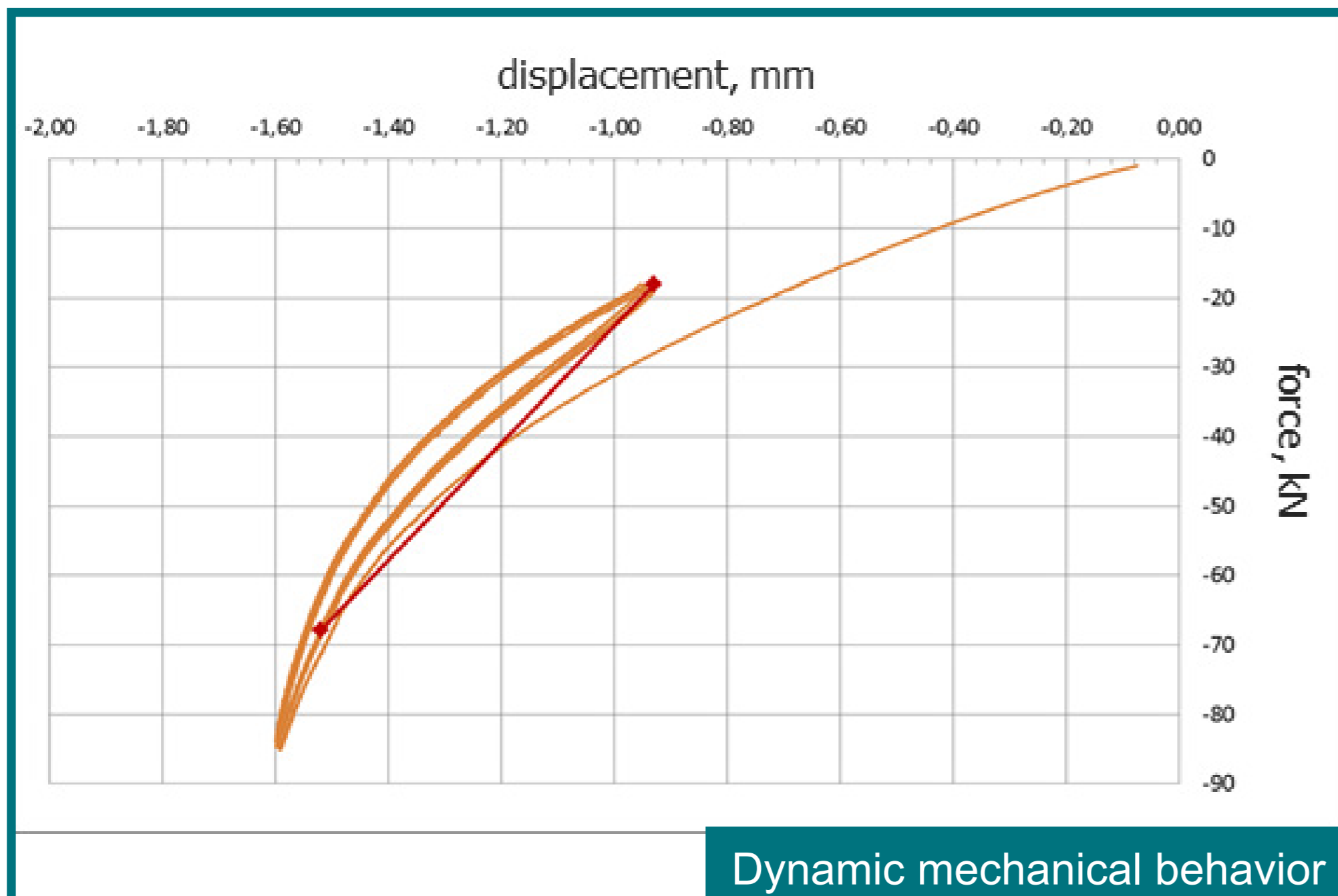
The use of elastomers in railway superstructure applications has a 30 year old history. This is because wood is more and more replaced by concrete in the production of sleepers. The use of concrete for sleepers led to an increasing need of damping materials that can counteract the intermittent loads that are imposed on the material by a passing train. Thus the elastomeric rail pads need to have superior damping properties as well as dimensional stability, aging resistance and good fatigue properties.

The loads that are acting on the material during application are composed of high compressive stresses and shear stresses. These loads are imposed on the material repeatedly and can thus lead to wear of the material.



Test rig

In order to support the material selection and development and to reproduce service conditions a test rig was developed that allows to test for the static and fatigue stiffness of the damping pads, in an service near environment.



Elastomeric damping pad



JÜRGEN FÖTTINGER

Materials Science and Testing of Polymers
juergen.foettinger@unileoben.ac.at

RESEARCH FOCUS: Cyclic test technique and component testing, engineering and construction, maintainance



GERALD PINTER

Materials Science and Testing of Polymers
gerald.pinter@unileoben.ac.at

RESEARCH FOCUS: polymer mechanics, fracture mechanics, fatigue testing, life-time prediction, durability and reliability of structural polymers

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