

COLLABORATIVE RESEARCH CENTER 837

## INTERACTION MODELING IN MECHANIZED TUNNELING

RUB

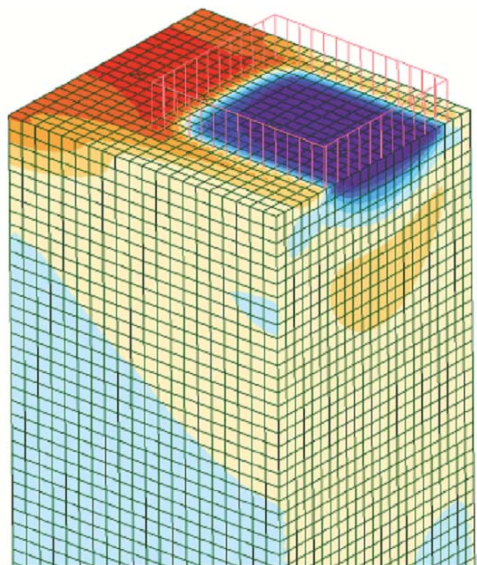
# Structural and Durability Aspects of Segmental Tunnel Lining Design with Steel Fibre Reinforced Concrete

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The structural and durability aspects of segmental tunnel lining design with steel fibre reinforced concrete are presented based on two practical examples, the District Heating Tunnel in Copenhagen and the STEP sewer tunnel in Abu-Dhabi.



Steel fibre reinforced concrete is an interesting alternative to traditionally reinforced concrete for statically indeterminate structures where moderate amounts of rebar reinforcement would be sufficient. For tunnel segments, it reduces or completely eliminates the need for the complex reinforcement cages in the segments and thereby presents a cost-efficient alternative.

Furthermore, steel fibre reinforcement has benefits regarding durability. The presentation will cover the modelling and design aspects, execution and production as well as durability aspects.

**Guests are sincerely welcome!**