

# **Vorlesungsverzeichnis**

Sonderveranstaltungen

SoSe 2024

Stand 23.04.2024

**Sonderveranstaltungen**

**3**

## Sonderveranstaltungen

### Summerschool P3: Use of Polymer-Modified Concretes (PCC) for Innovative Refurbishment Solutions

#### A. Flohr

Integrierte Vorlesung

Di, Einzel, 13:30 - 15:00, Basics of PCC, 20.08.2024 - 20.08.2024

Mi, Einzel, 09:00 - 12:30, PCC for refurbishment solutions, 21.08.2024 - 21.08.2024

Mi, Einzel, 13:30 - 17:00, Load-deformation behaviour of PCC / Multiscale modelling approach for PCC, 21.08.2024 - 21.08.2024

Do, Einzel, 13:30 - 15:00, Particle interaction, 22.08.2024 - 22.08.2024

Mo, Einzel, 09:00 - 12:30, Ex: Nano-CT, 26.08.2024 - 26.08.2024

Mo, Einzel, 13:30 - 17:00, PCC: fresh concrete properties, 26.08.2024 - 26.08.2024

Do, Einzel, 09:00 - 12:30, PCC: hardened concrete properties, 29.08.2024 - 29.08.2024

#### Beschreibung

Concretes are modified by the addition of polymers in order to improve the durability and the adhesive strength and due to that measure they suit optimal for refurbishment applications. The microstructural changes in the binder matrix, which consists of both cementitious and polymer components, will be studied. Afterwards it will be analyzed how they influence the macroscopic properties. The students will perform and analyze laboratory tests on different pure polymer specimens and selected concrete specimens in order to better understand the microscopic origin of the macroscopic behavior. The link between the micromechanical and macroscopic properties is briefly established using a continuum micromechanics approach. Different innovative restoration applications are addressed, in addition some examples will be shown for the use of PCC for constructional purposes.