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### **Numerical study of the biaxial Split-Hopkinson-test**

(Numerische Untersuchungen zum biaxialen Split-Hopkinson Versuch)

While the static behavior of concrete is mostly known, its dynamic behavior still raises challenging questions. Experimental testing of concrete under uniaxial dynamic loading with devices like the Split-Hopkinson-Bar attests a raise in concrete strength. By far less tested is whether and how the biaxial dynamic loading of concrete affects the material behavior of concrete.

Aim of this work should be the numerical study of the biaxial Split-Hopkinson-test. For this the focus lays on the common experimental test evaluation compared to the internal stress condition of the specimen. Interesting is also the degree of material damage with regard to the permitted time delay with which the impact is transferred into the second axis.

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