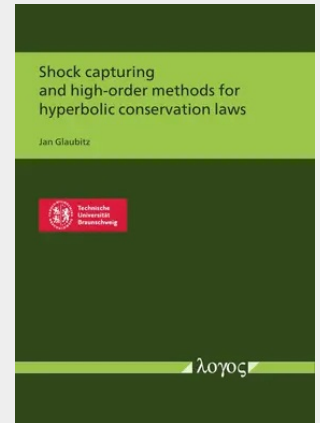


Shock capturing and high-order methods for hyperbolic conservation laws

This thesis is concerned with the numerical treatment of hyperbolic conservation laws. These play an important role in describing many natural phenomena. Challenges in their theoretical as well as numerical study stem from the fact that spontaneous shock discontinuities can arise in their solutions, even in finite time and smooth initial states. Moreover, the numerical treatment of hyperbolic conservation laws involves many different fields from mathematics, physics, and computer science. As a consequence, this thesis also provides contributions to several different fields of research -- which are still connected by numerical conservation laws, however. These contributions include, but are not limited to, the construction of stable high order quadrature rules for experimental data, the development of new stable numerical methods for conservation laws, and the investigation and design of shock capturing procedures as a means to stabilize high order numerical methods in the presence of (shock) discontinuities.

**56,50 €**

52,80 € (zzgl. MwSt.)

*Lieferfrist: bis zu 10 Tage***Artikelnummer:** 9783832550844**Medium:** Buch**ISBN:** 978-3-8325-5084-4**Verlag:** Logos**Erscheinungstermin:** 20.03.2020**Sprache(n):** Englisch**Auflage:** Erscheinungsjahr 2020**Produktform:** Kartoniert**Seiten:** 270**Format (B x H):** 170 x 240 mm