



## Behaviour of RC beams retrofitted/repared in shear with FRP

By Hasan Nikopour

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Taschenbuch. Book Condition: Neu. 220x150x8 mm. This item is printed on demand - Print on Demand Neuware - This book aims to explore the shear behaviour of externally Fibre-Reinforced Polymer (FRP) bonded reinforced concrete beams under quasi-static or monotonic loading. The effects of key parameters such as the shear span to effective depth ratio, FRP type and scheme, and stiffness of FRP sheets on shear behaviour aspects such as the ultimate load capacity, deflection, crack pattern, mode of failure, and final strain in the FRP sheets are presented. This book consists of two main phases incorporating experimental and numerical parts. In the experimental part, six beams were tested using different types of FRP sheets under quasi-static cyclic load and then three of these beams were repaired using epoxy injection along with new CFRP sheets and retested. The Genetic Algorithms (GAs) approach was used to develop simple, yet more accurate, formulas for predicting the ultimate load of RC beams under monotonic loading based on experimental data found in the open literature. Considerable improvement of the ultimate shear capacity of beams retrofitted using externally bonded hybrid FRP sheets was observed. 132 pp. Englisch.



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