Record Nr. UNINA9910163541903321 Autore Greefrath Gilbert Titolo Teaching and Learning Mathematical Modelling [[electronic resource]]: Approaches and Developments from German Speaking Countries / / by Gilbert Greefrath, Katrin Vorhölter Pubbl/distr/stampa Cham, : Springer Nature, 2016 Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 3-319-45004-2 **ISBN** Edizione [1st ed. 2016.] 1 online resource (VII, 42 p. 12 illus.) Descrizione fisica ICME-13 Topical Surveys, , 2366-5947 Collana Disciplina 370 Soggetti Mathematics—Study and teaching Learning Instruction Teaching **Mathematics Education** Learning & Instruction Teaching and Teacher Education Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Main Topics You Can Find in this "ICME-13 Topical Survey" --Introduction -- Survey on the State-of-the-art -- Summary and Looking Ahead. This survey provides an overview of the German discussion on Sommario/riassunto modelling and applications in schools. It considers the development from the beginning of the 20th century to the present, and discusses the term "mathematical model" as well as different representations of the modelling process as modelling cycles. Different trends in the historical and current debate on applications and modelling can be differentiated as perspectives of modelling. Modelling is now one of the six general mathematical competencies defined in the educational standards for mathematics introduced in Germany in 2003, and there

have been several initiatives to implement modelling in schools, as well as a whole range of empirical research projects focusing on teachers or

students in modelling processes. As a special kind for implementing modelling into school, modelling weeks and days carried out by various German universities have been established.