

# Contents

<b>Teaching and Learning Mathematical Modelling: Approaches and Developments from German Speaking Countries</b>	<b>1</b>
1 Introduction	1
2 Survey on the State of the Art	2
2.1 Background of the German Modelling Discussion	2
2.2 The Development from ICME 3 (1976) to ICME 13 (2016) in Germany	5
2.3 Mathematical Models	8
2.4 Modelling Cycle	10
2.5 Goals, Arguments, and Perspectives	14
2.6 Classification of Modelling Problems	17
2.7 Modelling as a Competency and the German Educational Standards	18
2.8 Implementing Modelling in School	20
2.9 Modelling and Digital Tools	21
2.10 Empirical Results Concerning Mathematical Modelling in Classrooms	24
3 Summary and Looking Ahead	35
References	36

Teaching and Learning Mathematical Modelling  
Approaches and Developments from German Speaking  
Countries

Greefrath, G.; Vorhölter, K.

2016, VII, 42 p. 12 illus., Softcover

ISBN: 978-3-319-45003-2