Table of Contents

Preface	5
Peter Bender, Paderborn Dynamic Geometry Software (DGS) in Teacher Education	7
Andreas Busse, Hamburg How Do Upper Secondary School Students Respond to Contextualised Tasks? First Results of an Empirical Study	19
Elmar Cohors-Fresenborg, Christa Kaune, Osnabrück Mechanisms of the Taking Effect of Metacognition in Understanding Processes in Mathematics Teaching	29
Willi Dörfler, Klagenfurt Diagrams as Means and Objects of Mathematical Reasoning	39
Hans-Wolfgang Henn, Dortmund Computer Algebra Systems – Old Wine in New Bottles?	51
Gert Kadunz, Klagenfurt Modularity and Geometry	63
Christine Knipping, Hamburg Argumentations in proving discourses in mathematics classrooms	73
Marianne Nolte, Hamburg Arithmetic Disabilities of Children and Adults - Neuropsychological approaches to mathematics teaching –	85
Marcus Nührenbörger, Münster Children's measurement thinking in the context of length	95
Kristina Reiss, Aiso Heinze, Augsburg Knowledge Acquisition in Students' Argumentation and Proof Processes	107
Edith Schneider, Klagenfurt Computer Algebra Systems and Cultural Coherence in Mathematics Classrooms	117
Christoph Selter, Heidelberg On the Arithmetical Flexibility of Primary School Children - Analyses Based on the Example Task 701-698	127
Silke Thies, Hans-Georg Weigand, Würzburg Working styles of students in a computer-based environment. Results of a DFG project	137