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Abstracts of Plenary and Invited Lectures

Section:

18. Teaching and Popularization of Mathematics

1991 MS Classification: 01 - 02
Steiner, Hans-Georg, Institute for Didactics of Mathematics (IDM), University of Bielefeld, Germany

Response to Michèle Artigue's lecture titled "From the Understanding of Learning Processes to the Design of Teaching Processes"

Having been asked by the Program and the Organizing Committee to give a response to Michèle Artigue's lecture, reflecting different currents of thinking, I'll refer to the following aspects and sources:

(1) Philosophical and Epistemological Aspects of Mathematics and their Interaction with Theory and Practice in Mathematics Education. H. G. Steiner. For the Learning of Mathematics 7 (1987), No 1, 7 - 13.
(2) Investigating and Bridging the Teaching-Learning-Gap. Proc. 2nd Conf. Int. Group on Theory of Mathematics Education (TME). Ed. by H. G. Steiner & A. Vermandel. Antwerp-Bielefeld 1988.
(3) Mathematization Processes in Class as Collective Higher Order Learning Processes: The Role of the Teacher and Reflections on Teacher Education. H. G. Steiner. Proc. 4th Central-American and Caribic Conference in Math. Ed. Acapulco 1990, 155 - 160.
(4) The Nature of Theoretical Concepts in Physics and Mathematics Implications for the Fragility of Knowledge in the Educational Context. H. G. Steiner. Proc. 2nd. Jerusalem Conference on Education. Ed. by Shlomo Vinner. Hebrew Univ. Jerusalem 1989, 387 - 396.
(5) R. Biehler, R. W. Scholz, R. Sträßer, and B. Winkelmann (Eds.): Didactics of mathematics as a Scientific Discipline. Kluwer Academic Publ. Dordrecht-Boston-London. 1994