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**The eyes to see: theoretical lenses for mathematical modelling research.**

Stillman, Gloria Ann (ed.) et al., Teaching mathematical modelling. Connecting to research and practice. Dordrecht: Springer (ISBN 978-94-007-6539-9/hbk; 978-94-007-6540-5/ebook). International Perspectives on the Teaching and Learning of Mathematical Modelling, 101-106 (2013).

Summary: This chapter will contribute to the discussion in one of the two symposia held at ICTMA-15, in particular the symposium about the role of theory in the research about mathematical modelling. First, the necessity to discuss theoretical approaches in the research about mathematical modelling and the idea of the symposium will be pointed out. Subsequently in the second part of the chapter the role of theory in research will be described more differentially. Finally, the contributions to the symposium are classified concerning the role of theory in the theoretical approach. The chapter closes with open questions still remaining, which may guide future symposia on the topic.

*Classification:* D20 M10

*Keywords:* modelling; research on modelling; role of theory

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