

Mathematical Problem-Posing Processes

Benjamin Rott¹

Jinfa Cai², Roza Leikin³, Igor' Kontorovich⁴, Chunlian Jiang⁵ and Flávia Sueli Fabiani Marcatto⁶

¹ University of Cologne

² University of Delaware

³ University of Haifa

⁴ University of Auckland

⁵ University of Macau

⁶ Federal University of Itajubá

Abstract

Mathematical problem posing is a topic that is gaining popularity in recent years. However, there is still a lack of research regarding the process of posing problems, starting with process models like the well-established models by Pólya or Schoenfeld for problem-solving processes. With this proposal for a Discussion Group at the upcoming ICME-15 conference in Sydney on the topic of problem-posing processes, we want to draw attention to the identified research gap.

There are three goals for this proposed Discussion Group (DG):

- (1) To explore and discuss advances of the research on problem-posing processes,
- (2) To explore and discuss methodological issues about the research on problem-posing processes, and
- (3) To identify research questions for future studies regarding this topic.

The DG serves as an ideal venue to gather those international scholars who are interested in problem-posing research in general and problem-posing processes in particular. This DG will be a starting point for the interested international scholars to discuss and initiate collaborations about research on mathematical problem-posing processes. The DG will focus on the following research questions: (1) What do we know about the problem-posing processes? (2) How should we research problem-posing processes? (3) What are the possible and feasible ways for participants to collaborate on understanding the problem-posing processes?