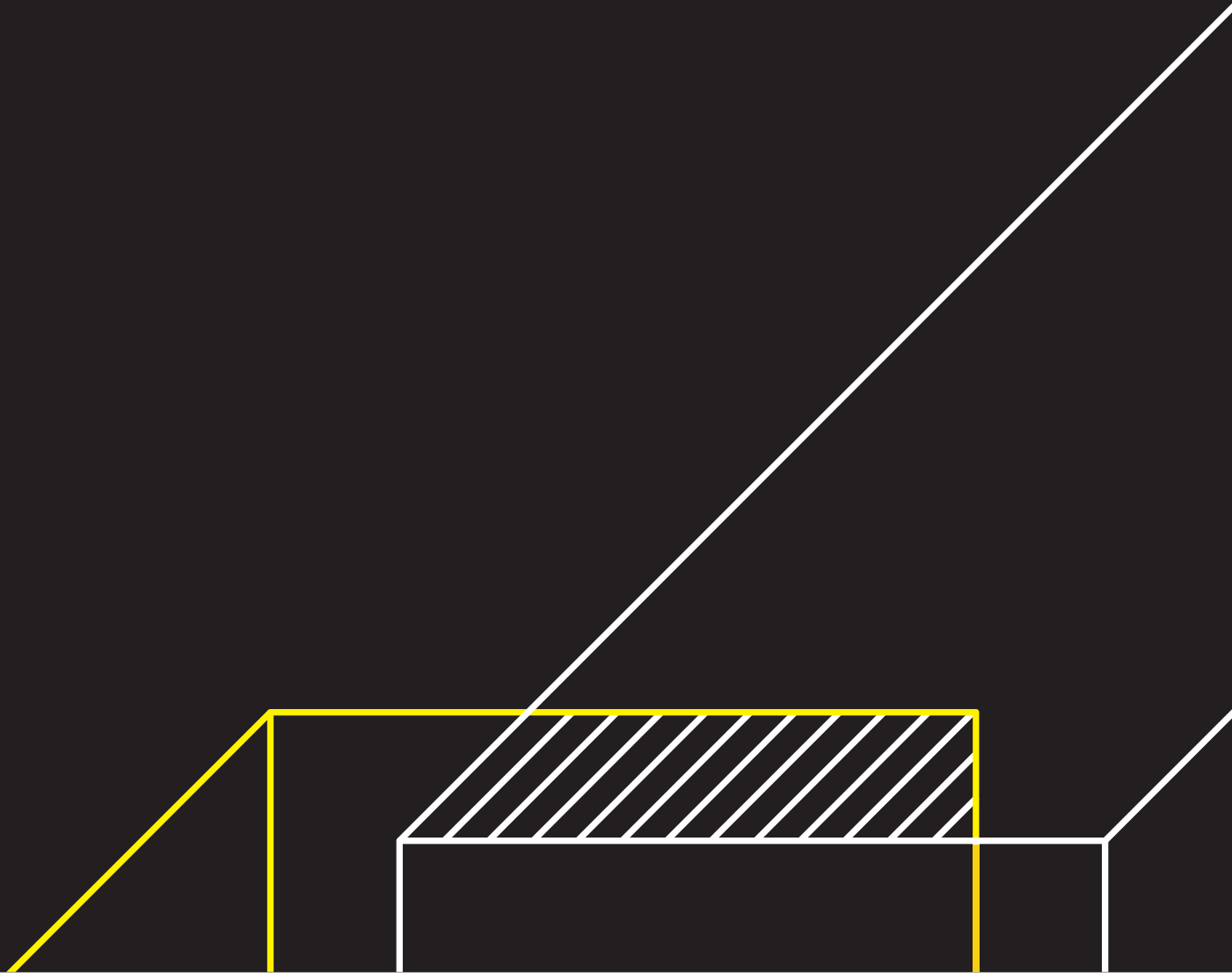


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 ВЫСШАЯ ШКОЛА ЭКОНОМИКИ
НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ

PROCEEDINGS
OF THE PME
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RUSSIAN
CONFERENCE:
**TECHNOLOGY
AND PSYCHOLOGY
FOR MATHEMATICS
EDUCATION**

Moscow, 2019



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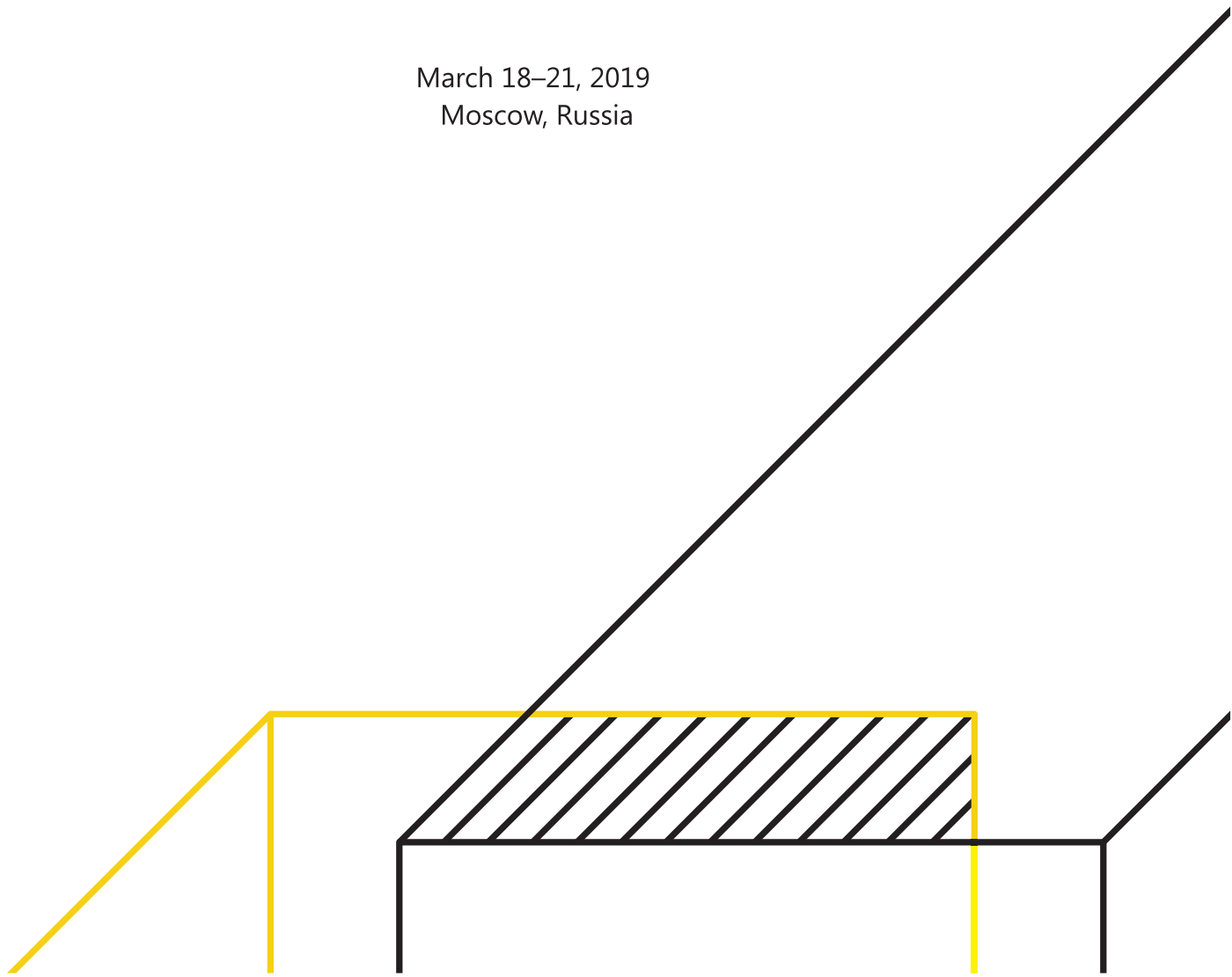
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FOR MATHEMATICS EDUCATION**

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FOSTERING PROBLEM SOLVING DISCUSSIONS THROUGH A GALLERY WALK

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This paper presents part of a project about the potential of visual strategies in problem solving by preservice teachers. The aim of the study was to identify and understand the contribution of a gallery walk (GW) to foster productive discussions about solving problems, as well as the participants' reaction to the GW.

School mathematics requires effective teaching that engages students in meaningful learning through individual and collaborative experiences, giving them opportunities to communicate, reason, be creative, think critically, solve problems, make decisions, and make sense of mathematical ideas [NCTM, 2014]. Assuming that the tasks used in the classroom are the starting point of students' learning, teachers should orchestrate productive discussions emerging from tasks that allow multiple (re)solution strategies and provide the use of different representations, in particular visual ones (e.g., [Ibid.]). We argue that mathematical learning should lead students, including preservice teachers, to think visually and develop this ability through experiences that require such thinking (e.g., [Presmeg, 2014]). The GW [Fosnot, Dolk, 2002] emerges as an instructional strategy to contemplate in classroom practices, which allows students to share their productions in posters fixed around the classroom and receive feedback, requiring them also to move around the room, and engage in collective discussions

We adopted an exploratory qualitative approach. Data was collected through observations and written productions, regarding the proposed tasks and written comments from a teaching experience carried out in a curricular unit where a GW was implemented to solve problems. The results allowed to identify the strategies used by future teachers, that appeal to visual resolutions, and to verify the potential of the GW for the improvement of the discussions that contributed for the enlargement of their repertoire of strategies and engagement on the GW instructional strategy.

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