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Abstract for an Invited Paper
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New research on women's low participation in science and technology¹

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It is well known that women have historically been and continue to be grossly underrepresented in technical fields (i.e., the physical sciences, engineering, and computing). This presentation will address the following research questions: What dissuades women from entering into a technical career track, and what are women's experiences like within technical fields? At the same time, this presentation will acknowledge a shortcoming of decades of social science research and interventions designed to improve women's interest and persistence in technical fields: a narrow definition of "women". Given that the majority of women in colleges and universities (i.e., the typical sites of social science research) tend to be affluent and/or White, STEM education research that relies on convenience samples at colleges and universities paints a skewed picture of gender issues in technical fields. This presentation will showcase research findings that call into question conventional conceptions of gender disparities in technical fields. Specifically, the presentation will emphasize the importance of recognizing that women constitute more than their gender; women come from a diverse array of backgrounds, which no doubt play a role in the experience of being a woman in technical fields. By understanding the experiences of women from a broad array of demographics groups, the STEM education community can develop a corresponding set of strategies to recruit and retain women with diverse interests, experiences, and values (e.g., first generation versus second college students; women of different racial/ethnic backgrounds). The aim of this presentation is to promote social science research and interventions that acknowledge the nuanced experiences of diverse women in technical fields, in order to address the seemingly intractable problem of women's underrepresentation in technical fields.

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