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**Highlighting ten years of physics education research in the upper division**

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The field of Physics Education Research (PER) has for over thirty years provided insights into student thinking and guided the development and assessment of reformed teaching strategies and practices in introductory physics courses. In the last decade or so, researchers have expanded the domain of such investigations to upper-division courses where undergraduate majors study more advanced content and begin to see themselves as future physicists. The upcoming Focused Collection on Upper Division PER brings together work from researchers active in these new frontiers of PER. In this presentation we provide an overview of the studies in this collection, which offer to the PER and greater physics education communities: new insights about the thinking, behavior, and beliefs of students in the upper division; new tools to innovate instruction, assess student learning, and evaluate teaching effectiveness; and groundbreaking studies of identity development and “thinking like a physicist” among physics majors. In this session we also recognize the ten-year anniversary of Physical Review Special Topics: Physics Education Research, an occasion that we will celebrate with an informal reception immediately following the conclusion of this invited session.