

Abstract Submitted  
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**Identifying and Addressing Student Difficulties with Hydrostatic pressure** MICHAEL LOVERUDE, California State University Fullerton — This talk describes an investigation of student learning of the concept of pressure in a static liquid. We document patterns of student answers and explanations in response to a variety of written and interview questions. Our results suggest that many students in undergraduate physics courses fail to develop a correct understanding of the concept of pressure in the context of a static liquid. Many students have difficulty identifying the forces that act on a liquid and in relating those forces to pressure. We describe the development and assessment of research-based instructional materials designed to address student difficulties with pressure and provide evidence that these materials can improve student understanding of some ideas.

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