Challenges in measuring the vertical structure of near-surface currents

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There is a growing variety of approaches for measuring near-surface ocean currents. As challenging as it is to make these measurements, understanding how to compare measurements made at different depths or by different techniques can be even more challenging. The purposes of this presentation are to: (1) review some of what we know about the vertical structure of horizontal velocity near the ocean surface, and (2) discuss some of the difficulties associated with different types of velocity measurements. Particular attention will be given to the real and spurious contributions of surface waves to velocity measurements from instruments attached to floating buoys.