

Abstract Submitted  
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**Incompressible SPH and New Developments** STEVEN LIND, University of Manchester, SPH@MANCHESTER TEAM — SPH shows considerable promise for modelling a range of challenging fluid phenomena, especially those involving highly deforming free-surface flows or interfaces with potential topology change. SPH is often applied in weakly compressible form, but incompressible SPH is a newer alternative gaining popularity given its ability to predict accurate pressure fields without the use of empirical equations of state, artificial sound speeds, or excessive numerical diffusion. This talk will provide an overview of recent developments for the incompressible SPH approach, including examples of its application in quite diverse areas of fluid mechanics. New methodologies for achieving stability and very high accuracy will also be discussed.

Steven Lind  
University of Manchester

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