## Abstract View

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# A Three-Dimensional Model of the Bristol Channel

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ABSTRACT

A three-dimensional numerical model is described. The variation through the depth of the dependent variables, other than the sea surface elevation, is expressed in terms of an arbitrary set of basis functions, giving a continuous representation through the vertical which is not available from layered models. The model is developed so as to allow continuous density stratification. As a first test of the method, the model is applied to the Bristol Channel, assuming homogeneous conditions. Comparisons are made between model and observed values of the M2 tidal constituent for both sea surface elevation and current.