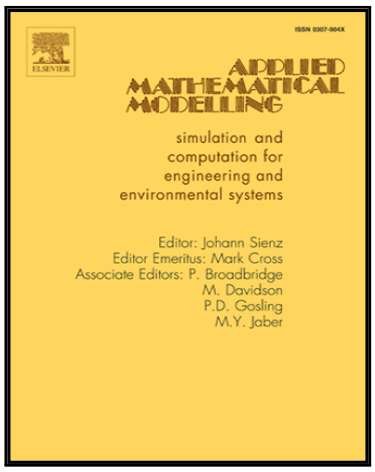

Quasi-2D Model for Computation of Supercritical Free Surface Flow in Sudden Expansion

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Highlights

- A simplified and elegant mathematical model, named quasi-2D, is proposed
- 2D shallow water model is converted to an equivalent 1D flow problem
- The proposed approach is less complicated than direct models based on the full 2D model;
- Results obtained are in satisfactory agreement with experiments;
- The proposed model can nicely extended to other analogous problems