WAVE-CURRENT INTERACTIONS FOR THE SEA-RIVER DYNAMICS AT MICROTIDAL SYSTEMS.

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An analysis is proposed of some sea-river dynamics evolving at microtidal systems, through interpretation of the underlying wave-current interactions. The aim of such analysis is twofold: i) to clarify the role played by wave-current interactions at river mouths, ii) to provide insight useful for the management and mitigation of floods of estuarine cities.

An integrated interpretative approach is proposed, which regards the estuary as part of one single physiographic unit, including both the river catchment and the contiguous coastal domains. This not only avoids fragmentation associated with distinct domains requiring different types of models and boundary conditions, but it also leads to significant improvements in the management of the risk of floods of estuarine cities.