

## Pollutant Dispersion in Coastal Waters

**Authors :** Sonia Ben Hamza, Sabra Habli, Nejla Mahjoub Saïd, Hervé Bournot, Georges Le Palec

**Abstract :** This paper spots light on the effect of a point source pollution on streams, stemming out from intentional release caused by unconscious facts. The consequences of such contamination on ecosystems are very serious. Accordingly, effective tools are highly demanded in this respect, which enable us to come across an accurate progress of pollutant and anticipate different measures to be applied in order to limit the degradation of the environmental surrounding. In this context, we are eager to model a pollutant dispersion of a free surface flow which is ejected by an outfall sewer of an urban sewerage network in coastal water taking into account the influence of climatic parameters on the spread of pollutant. Numerical results showed that pollutant dispersion is merely due to the presence of vortices and turbulence. Hence, it was realized that the pollutant spread in seawater is strongly correlated with climatic conditions in this region.

**Keywords :** coastal waters, numerical simulation, pollutant dispersion, turbulent flows

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