



## **A Real-Time Response to a Marine Oil Spill: an Intedisciplinary Approach.**

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By combining tools from dynamical systems theory and remote sensing techniques, we achieve a remarkable representation of the events following the sinking of the Oleg Naydenov fishing ship, that took place close to the Canary Islands in April 2015 [1].

The emergency services acquired a precise knowledge of the evolution of the spill, occurred after the sinking, by means of a formidable, extremely time-consuming and expensive effort. In this presentation we show that remote sensing techniques [2] allowed a direct observation of the spill in extensive areas. The time evolution of the observed spills was pursued by dynamical systems tools that, based on COPERNICUS IBI velocity fields data, were able to predict the impact of the spill in the coast of Gran Canaria. A deep description of the dispersion processes produced by ocean currents is achieved by means of Lagrangian Descriptors [3,4,5] that highlight an invisible but real dynamical skeleton, governing the transport processes in the area.

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