



## **CICLO DI SEMINARI**

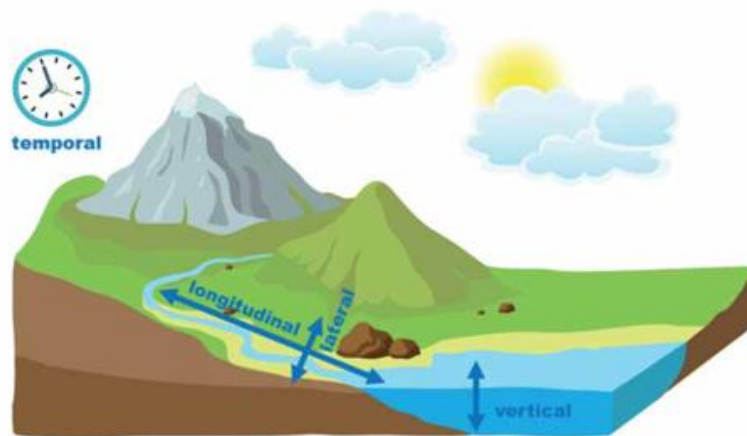
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Venerdì 16 Aprile 2021 Ore 15:00 CET

### **Investigating river-sea system sediment connectivity: from Source to Sea**

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On a global scale, the flux of particles from rivers to the sea is estimated at 20 billion tonnes of sediments per year, with huge implications both from a geomorphological and ecological point of view. Indeed, though a natural component of all water bodies, the sediment itself is often considered a physical and chemical pollutant of water bodies. However, even if riverine transport is the primary direct impact of human activities on coastal environments, coastal management plans often lack systematic processes to assess land-based impacts. In such a context, the concept of the River-Sea continuum, which entails the assessment of sediment connectivity of the river basins and their deltaic systems, plays a fundamental role. Collecting sufficient data to quantitatively determine system connectivity is, however, extremely time and resource expensive. Satellite Earth Observation (EO) systems provide a powerful tool to define a holistic approach for efficient integrated coastal management plans. During this seminar, an overview of the main approaches employed for the assessment of River-Sea system sediment connectivity and the potential of the EO systems in this context will be presented.