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OBAVIJEST

Dana **10.04.2020.** (pet) u **12:15 sati** održat će se na Geofizičkom odsjeku PMF-a sljedeće izlaganje:

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Deep learning surface transport barriers from Lagrangian ocean drifters

ABSTRACT: Lagrangian ocean drifters provide highly accurate approximations of ocean surface currents but are sparsely located across the globe. As drifters passively follow ocean currents, there is minimal control on where they will be collecting data, providing limited temporal coverage for a given region. Complementary Eulerian velocity data is available with global coverage, but is itself limited by the spatial and temporal resolutions possible by satellite altimetry measurements. These altimetry measurements approximate geostrophic components of ocean currents but neglect smaller submesoscale motions and require smoothing and interpolation from raw satellite track measurements. In an effort to harness the rich dynamics available in ocean drifter datasets, we trained a blended drifter model to learn submesoscale features by combining a slow manifold particle transport model with a recurrent neural network. This method improved the temporal and spatial resolution of drifter velocities estimates and was able to correct drifter trajectories near submesoscale transport barriers that were missed when only using satellite and wind reanalysis data. This modeling approach was evaluated in several locations with rich submesoscale dynamics and showed great dexterity in learning particular transport features.

Pozivaju se studenti i svi zainteresirani da prisustvuju predavanju, koje će se održati u **predavaoni P2** Geofizičkog odsjeka PMF-a, Horvatovac 95, Zagreb.