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New insights into the workings of the ocean obtained using optical sensors on autonomous floats

The Argo program provides the only synoptic view of the upper 2000 m of the global ocean. To date this program focused on physical measurements of salinity and temperature. While reports of the utility of optical sensors on profiling floats exist since about 2000, such sensors have not been integrated to the Argo program. In my talk I will present case studies demonstrating the utility of adding optical sensors on Argo-like floats to study particulate carbon dynamics in general and the seasonal dynamics of phytoplankton in particular.