



## **Application and analysis on BGC-Argo floats in the West Pacific and South China Sea**

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As a mature technology, Biogeochemical-Argo (BGC-Argo) is the extension of the Argo array of profiling floats equipped with biogeochemical sensors for pH, oxygen, nitrate, chlorophyll, suspended particles, and downwelling irradiance. There are very few observations obtained by BGC-Argo in the West Pacific and South China Sea (SCS).

The plan is to deploy total 16 BGC-Argo floats with similar sensors in these area, in order to uncover the mechanism on phytoplankton bloom in winter and how to be affected by eddies, to analyze the distribution and seasonal and interannual variability of oxygen and nitrate. Moreover, to identify the inherent correlation between surface optical character and subsurface phytoplankton in SCS, we analyze the big data from historic and recent biogeochemical observations to discover possible new relationship by means of the method of neural network.