



## **Upper heat content of the North Atlantic obtained from Argo data, 1998-2007**

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We present results of the reconstruction of the global heat content (1998-2007) and spatially distributed heat content (2004-2007) in 1000m upper layer of the North Atlantic on a two-degree, latitude-longitude grid. The special spectral approach is used to filtrate the Argo data, fill spatial gaps in observation coverage and detect spatial-temporal structures of the content. Levitus climatic temperature field is used as the reference level to determine a sign of anomaly of global heat content and its possible trends between 1998 and 2007. Bias and variance of the obtained estimations are presented.

Our calculations show: (1) existence of explicit positive anomaly of the heat content; (2) no linear trend in behavior of the global heat content between 1998 and 2007. That is explained by computation errors and/or the fact that temporal variability of the content is evidently much larger than the trend; (3) seasonal and bi-annual variability of the anomaly of heat content and, probably, its oscillations corresponding to periods equal or greater than 8 years.