



## **Is a GIA signal in GRACE data present in the Kara Sea region?**

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Recent studies have found a positive trend in the time variable gravity field measured by the Gravity Recovery Experiment (GRACE) in the Barents-Kara Sea region. The Barents Sea signal can be explained as result of Glacial Isostatic Adjustment (GIA). This signal may have originated by the collapse after the Last Glacial Maximum (LGM) of the ice dome in the Barents Sea. However, the gravity trend over the Kara Sea has not been further investigated. We use up to date GRACE data to understand the origin of the gravity anomalies in the Barents-Kara Sea region. We study the impact of GRACE ocean models, mass loss in the nearby Arctic Archipelago islands as well as hydrology to determine if the positive anomaly on the Kara Sea is caused by GIA.