

**Seminar on Physics and Chemistry
of the Atmosphere
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New findings of the dynamics on the northeastern Chukchi Sea shelf, Arctic Ocean

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Abstract

In this seminar, I will present multiyear observational results derived from velocity and hydrographic measurements on the northeastern Chukchi Sea shelf. This shelf is one of the most productive areas in the polar oceans, and a foraging area for large marine mammals such as gray whales and walruses. The focus will be on the undersampled Hanna Shoal region, where the physical oceanography is still largely known. Dynamical insights on the circulation and hydrography are clarified. Persistent stratification in wintertime, internal waves, saline water movements, topographic waves, and shelf-basin interaction are the major findings in this portion of the shelf. They assert important aspects on the local modification of nutrient-rich Pacific-origin waters, biological activities, and the Arctic climate. I appreciate your attendance and look forward to having your feedback.