



## Abstract View

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## Wind-Driven Circulation in a Fjord

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### ABSTRACT

Currents, temperature, salinity, wind, runoff and water level were observed for a month in the Jøsen-fjord of southern Norway. Tide gages and currents show little semidiurnal tide. There is a strong diurnal signal in the upper 20 m, which a linear model shows to be caused by the wind. There is a week-long event in which the entire water-mass above the sill is flushed out; this is interpreted to be caused by downwelling outside the fjord. The strong stratification near the surface of the fjord greatly modifies the diurnal response of the fjord, but any density-driven mean circulation is at least an order of magnitude smaller than the wind-driven currents.

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