



Universidad de Concepción
Facultad de Ciencias Físicas y Matemáticas
Departamento de Geofísica



SEMINARIO:

“Impact of climate change on the Northern Humboldt System: a modelling study”

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Resumen :

We present the results from a modelling study of climate change in the Northern Humboldt System. Large scale atmospheric and oceanic conditions from idealize climate change scenarios (preindustrial and quadrupling CO_2) from the IPSL-CM4 climate model are used. Results show a weak decrease of the upwelling favorable winds off Peru and a moderate increase off Northern Chile in $4xCO_2$ warming conditions. The ocean model responses quasi linearly to the wind stress changes in terms of vertical mass flux. The increased thermal stratification in the ocean induces a change in mesoscale circulation, resulting in increase eddy kinetic energy off Peru and little change off Chile. The potential impact on productivity and larvae retention is also outlined.

Auditorio Alamiro Robledo
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Martes 31 de agosto, 16 hrs.

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