

Supplement of Ocean Sci., 13, 145–160, 2017
<http://www.ocean-sci.net/13/145/2017/>
doi:10.5194/os-13-145-2017-supplement
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Supplement of

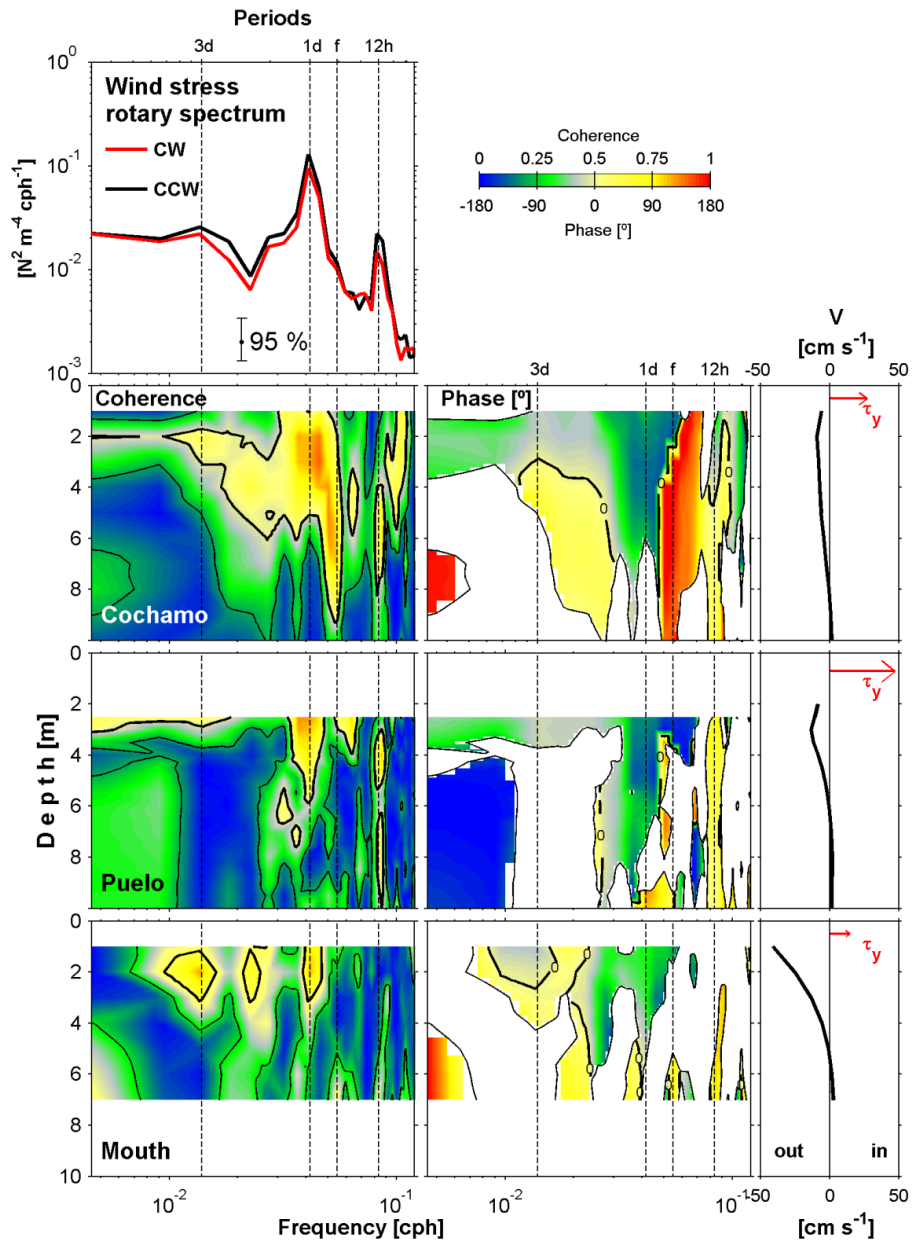
Seiche excitation in a highly stratified fjord of southern Chile: the Reloncaví fjord

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1 Supporting Information



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 3 **S1 Figure:** Relationship between wind stress and currents. The upper-left insert presents the
 4 rotary spectrum of the wind stress. Here, the red line indicates clockwise rotations (CW) and the
 5 black line counter-clockwise (CCW) rotations. The bar indicates the 95% confidence interval.
 6 The coherence and phase spectra between τ_y and the along-fjord component in the upper 10 m are
 7 presented in contour plots. In the coherence, black lines indicate coherences over 80% (thin) and
 8 99% (wide) confidence levels. In the phase spectra, only phases with coherences over 80%
 9 confidence levels were plotted (the thin black line obtained from the coherence spectra). To
 10 emphasize the changes in phase, we included the 0° contour (wide black line) in the phase
 11 spectra. The mean profile of the along-fjord currents and the mean τ_y were included in the right
 12 inserts. Dashed vertical lines denote the three-day, one-day, inertial (f), and 12-hour periods.

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2 **S2 Table:** Locations of the ADCP and sealevel moorings and the meteorological station. Here
3 presents details of the time series measured on the Reloncavi fjord. You must notice that the error
4 (*) on the ADCP, results from the measurement configuration whereas the accuracy and
5 resolution came from factory.
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site	Instrument	depth [m]	Lat [°S]	Lon [°W]	dates	interval [min.]	depth cell [m]	error*	accuracy	resolution
Cochamo	ADCP 300 kHz	15	41.47	72.32	6 Aug. – 10 Oct. 2008	10	1.0	< 2 [cm s ⁻¹]	± 0.5 [cm s ⁻¹]	0.1 [cm s ⁻¹]
	HOBO U-20	14	41.51	72.30	14 Aug. – 13 Nov. 2008	10	---	---	± 1.5 [cm]	0.21 [cm]
Puelo	ADCP 600 kHz	28	41.65	72.37	16 Aug. – 11 Nov. 2008	20	0.5	< 2 [cm s ⁻¹]	± 0.3 [cm s ⁻¹]	0.1 [cm s ⁻¹]
	ADCP 300 kHz	34			16 Aug. – 11 Nov 2008	10	1.0	< 2 [cm s ⁻¹]	± 0.5 [cm s ⁻¹]	0.1 [cm s ⁻¹]
	Davis Vantage Pro2	10 height	41.68	72.38	7 Jul. 2008 – 18 Feb. 2009	10	---	---	direction: 3° speed: 1 [m s ⁻¹]	1° 0.4 [m s ⁻¹]
mouth	ADCP 300 kHz	11	41.72	72.62	8 Aug. – 6 Nov. 2008	10	1.0	< 2 [cm s ⁻¹]	± 0.5 [cm s ⁻¹]	0.1 [cm s ⁻¹]
	ADCP 75 kHz	430			8 Aug. – 6 Nov. 2008	20	8.0	< 2 [cm s ⁻¹]	± 0.5 [cm s ⁻¹]	0.1 [cm s ⁻¹].
	SBE-26	25	41.71	72.58	5 Sep. – 11 Nov.2008	10	---	---	± 2.5 [cm]	0.02 [cm]

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S3 Table: Summary of the along-fjord CTD stations in the Reloncavi fjord. In addition to the position, the bottom depth of each station is indicated.

CTD N°	Lat [°S]	Lon [°W]	H [m]	CTD N°	Lat [°S]	Lon [°W]	H [m]
1	41° 24.51'	72° 17.57'	43	11	41° 37.86'	72° 20.95'	177
2	41° 25.33'	72° 17.34'	59	12	41° 39.22'	72° 21.89'	152
3	41° 26.15'	72° 18.10'	62	13	41° 41.01'	72° 24.16'	220
4	41° 26.77'	72° 18.49'	63	14	41° 41.90'	72° 26.12'	266
5	41° 27.66'	72° 19.01'	76	15	41° 42.87'	72° 28.22'	268
6	41° 28.76'	72° 19.16'	92	16	41° 42.90'	72° 31.24'	440
7	41° 29.83'	72° 19.10'	104	17	41° 43.48'	72° 33.95'	450
8	41° 31.59'	72° 19.28'	190	18	41° 43.28'	72° 36.69'	457
9	41° 33.39'	72° 19.71'	200	19	41° 42.73'	72° 39.28'	457
10	41° 35.63'	72° 20.36'	197				

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