2010-01 Salinity duplicates

Precision statement for replicate samples drawn from a single Niskin bottle:

The pooled standard deviation for Salinity:Bottle for the range 31.2709 to 34.6803 was 0.0020,
k = 8 (1 outlier removed) where k is the number of pairs of duplicates.

The pooled standard deviation of pairs of samples (Sp) was calculated by:
Sp = SQRT{sum (d*d)/2k}
where k is the number of pairs and d is the difference between pairs.

Determination of outliers

Outliers are discarded on the basis of Chauvenet's criteria. The statistic is calculated by the difference between the outlier and the mean, divided by the stdev.

If this absolute value is greater than the critical value of the Chauvenet criterion for the given n, the datapoint can be discarded.

Duplicate samples from a single bottle

Event Number	Sample Number	Station	Pressure dbar	Salinity 1	Salinity 2	Rejected yes / no	Comment
1	3	Si03	175.8	31.2738	31.2709		
5	25	P2	100.1	32.4548	32.4607		
10	47	P4	1263.1	34.4731	34.4725		
25	221	P16	3496.8	34.6673	34.6678		
33	309	P19	4.7	32.4021	32.4063		
34	310	P20	4026.4	34.2798	34.6803	Yes	
34	311	P20	3501.9	34.6732	34.6728		
48	109	P12	2999.9	34.6464	34.6463		
55	432	P8	1998.1	34.5911	34.5926		