



FD long term monitoring using stars: Coihueco preliminary results

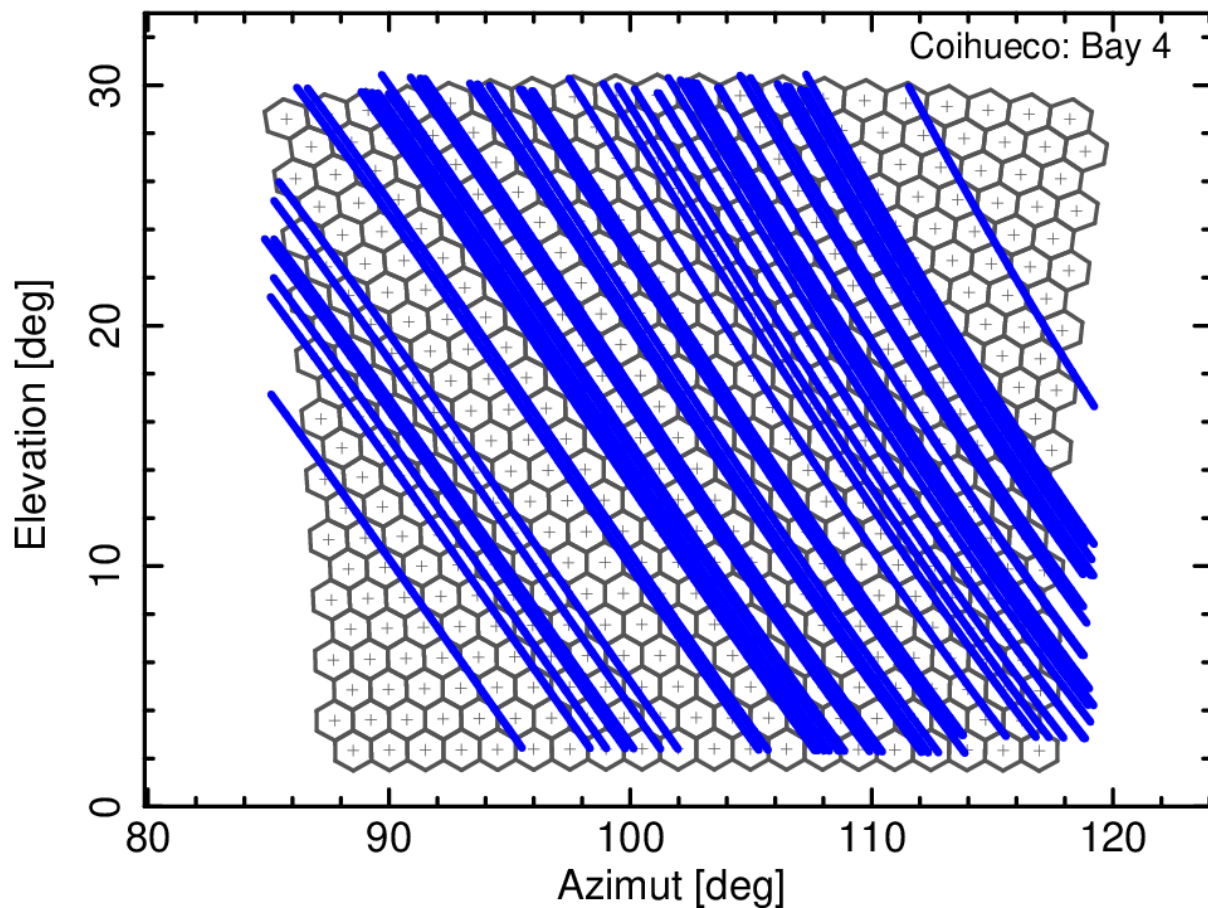
A. Segreto

Operation and Long Term Performance Meeting - June 3th 2020

Star selection for Coihueco Bay 4

Spectral type statistics

Type	N.
O	4
B	33
A	5
F	5
G	1



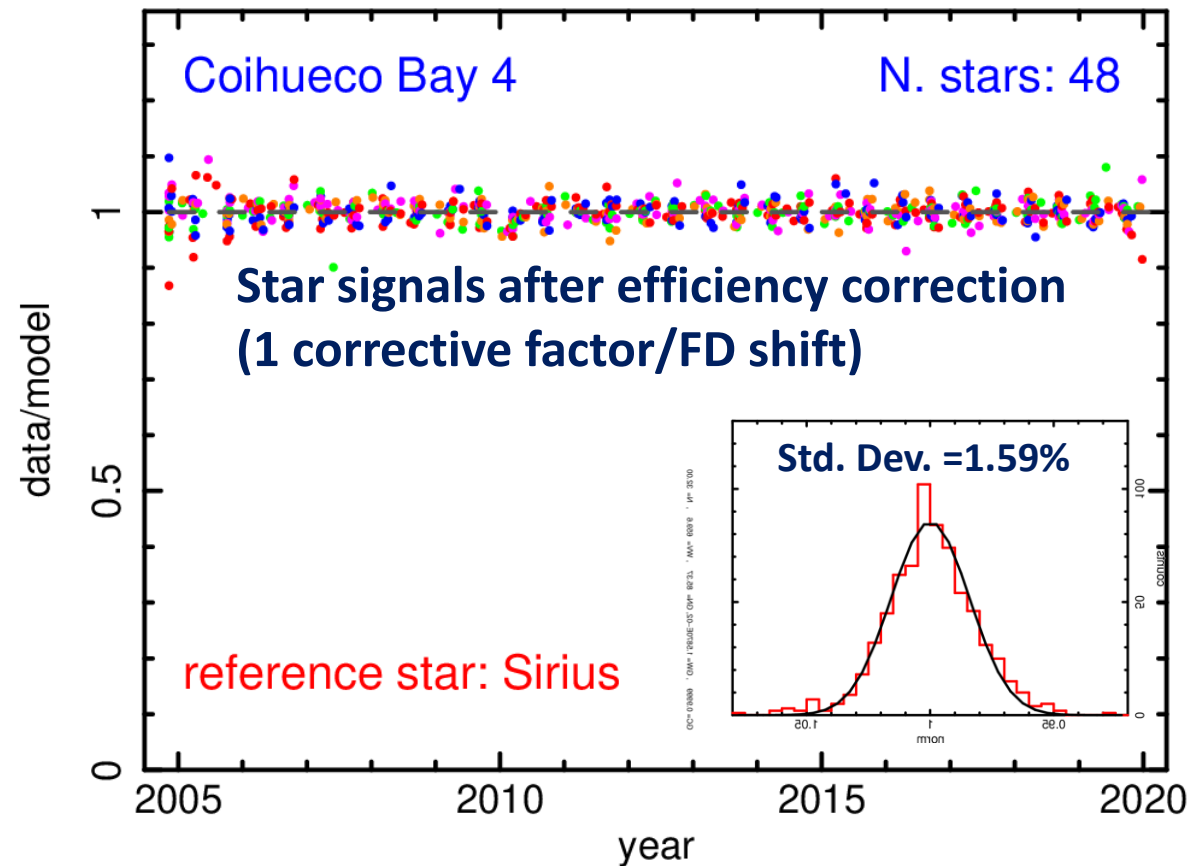
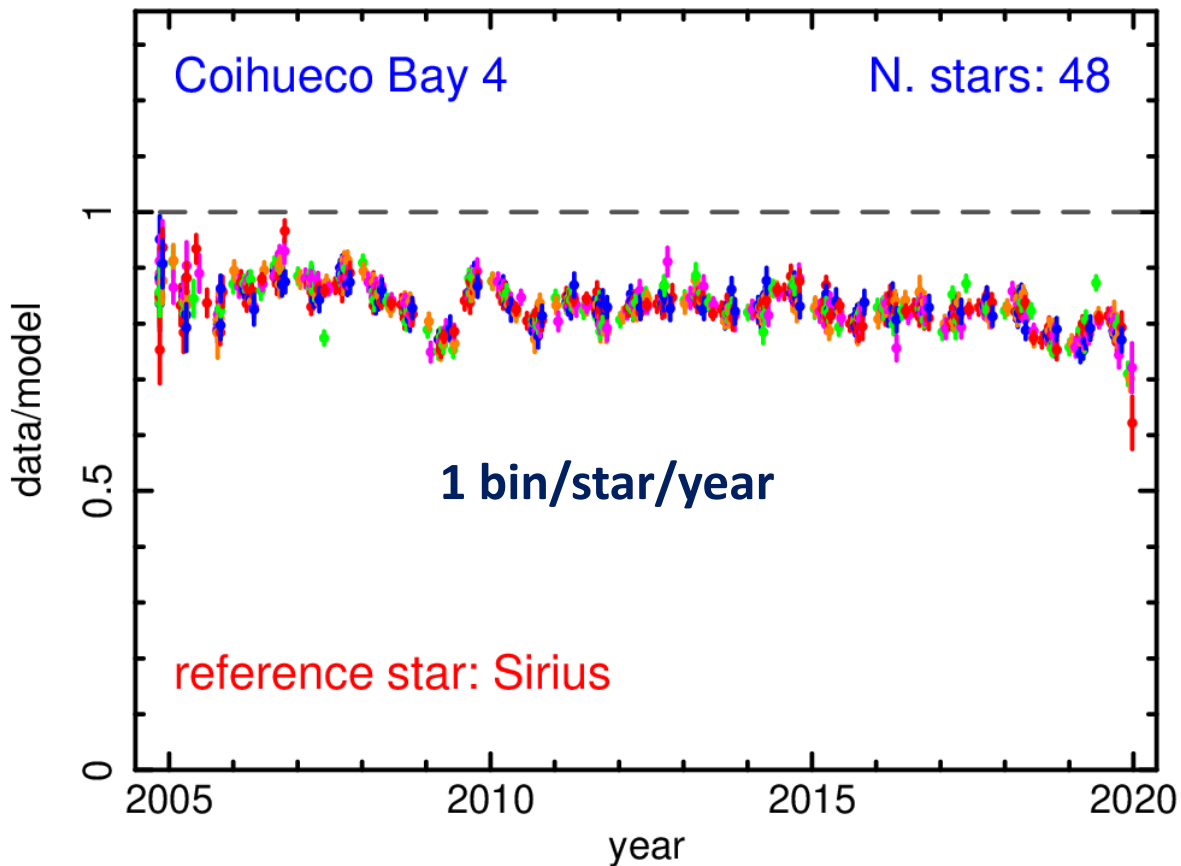
Star brightness statistics

Umag	N.
-2 -1	1
-1 0	2
0 1	3
1 2	8
2 3	13
3 4	21

	48

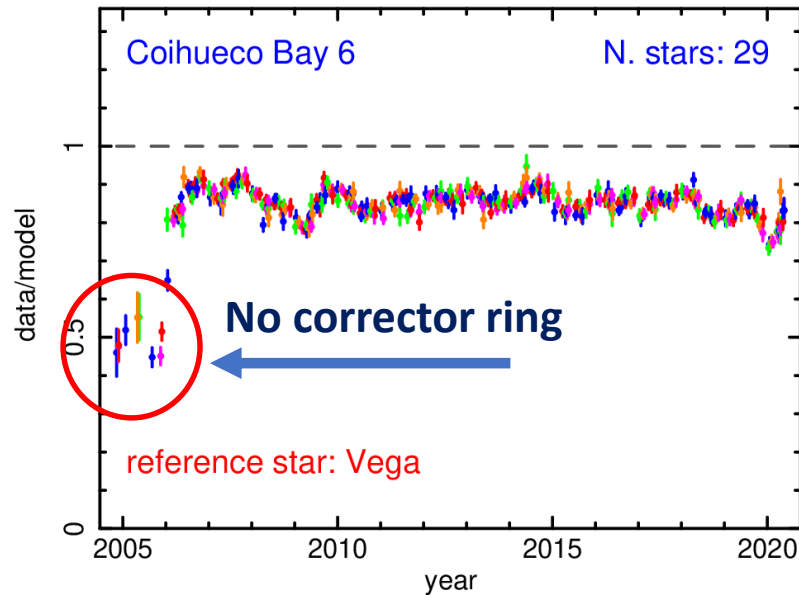
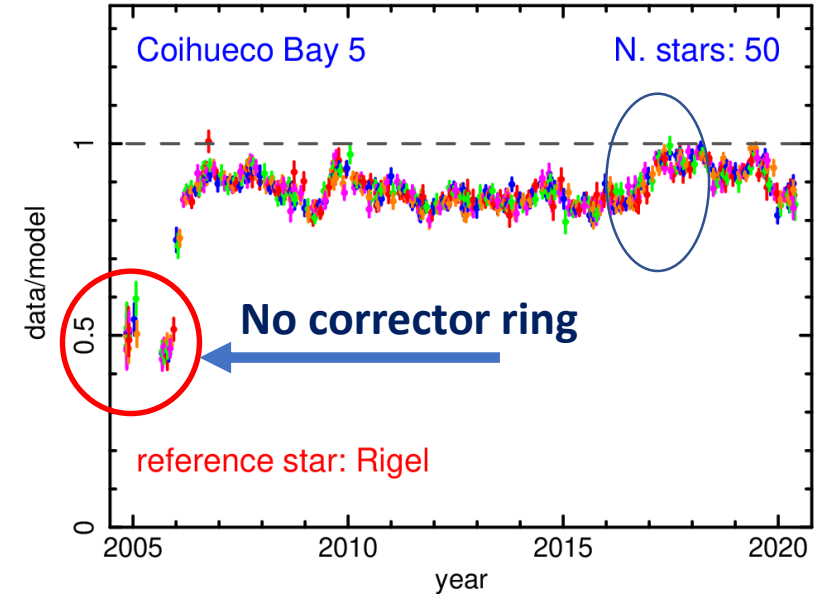
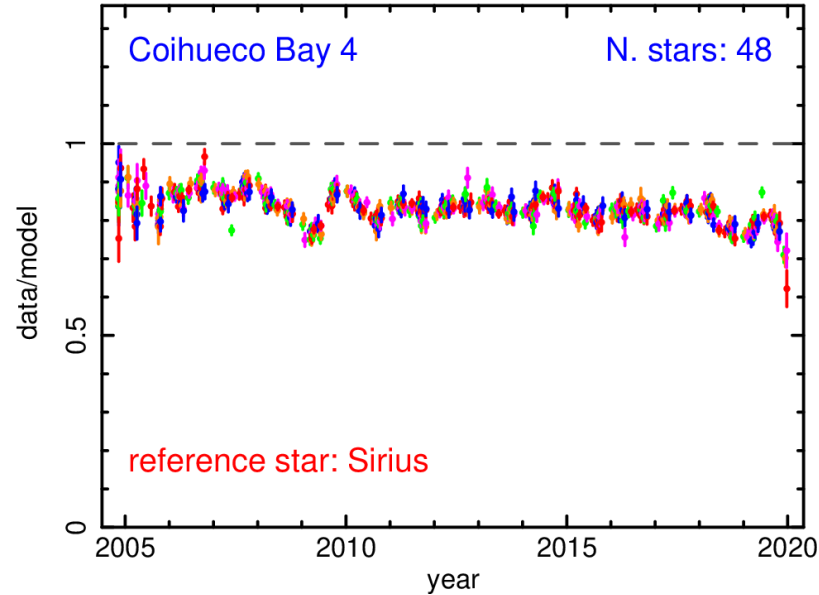
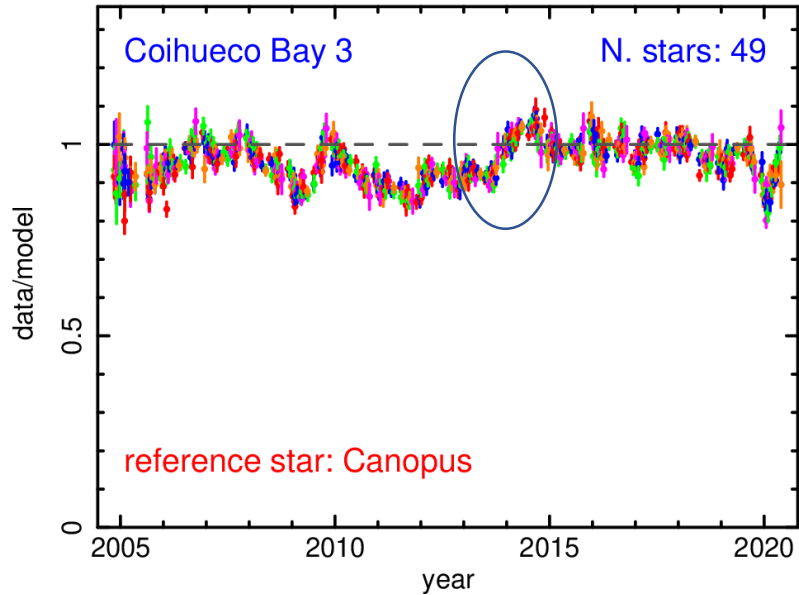
- To monitor the FD calibration status we select all stars crossing the field of view ($\pm 15^\circ$ from axis) with magnitude in the U band < 4

Long term evolution in Coihueco bay 4



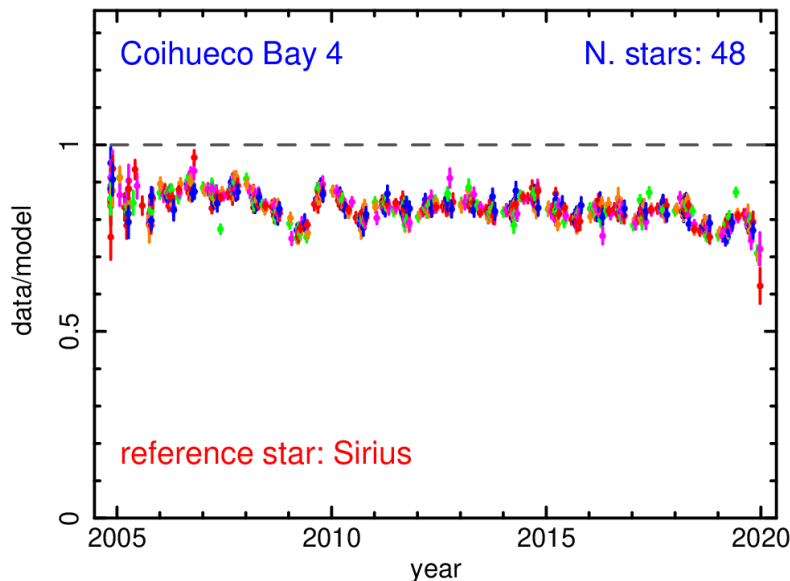
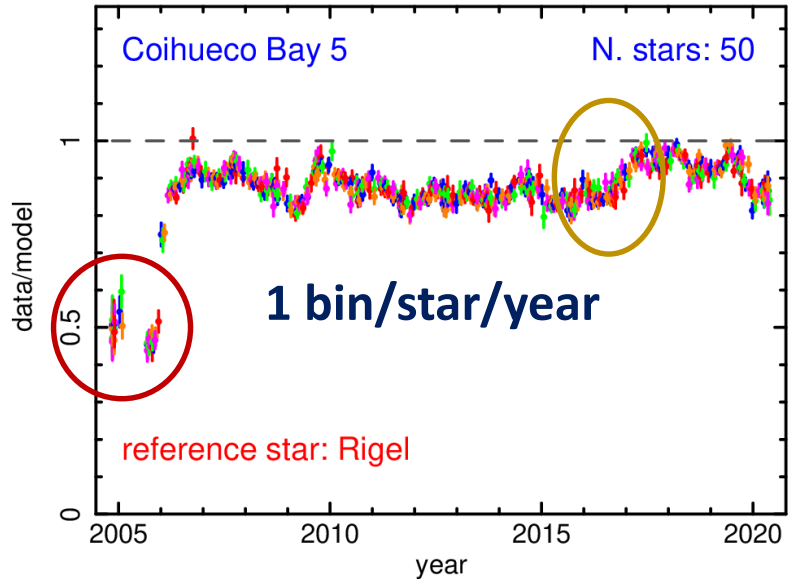
■ Sirius is used as absolute reference, the others are rescaled to match the reference star

Long term using stars for Coihueco Bays

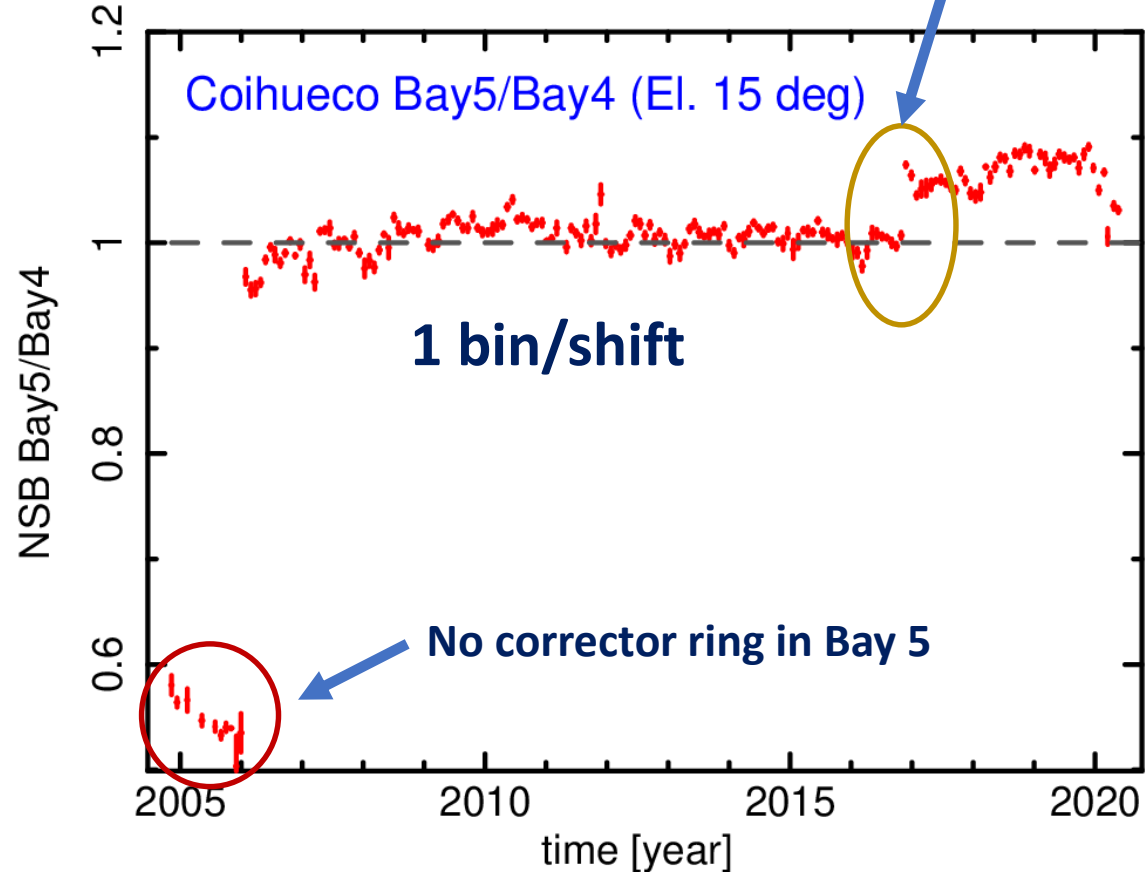


- No evidence for systematic long-term drift
- Quite stable long term behaviour but a few significant discontinuities

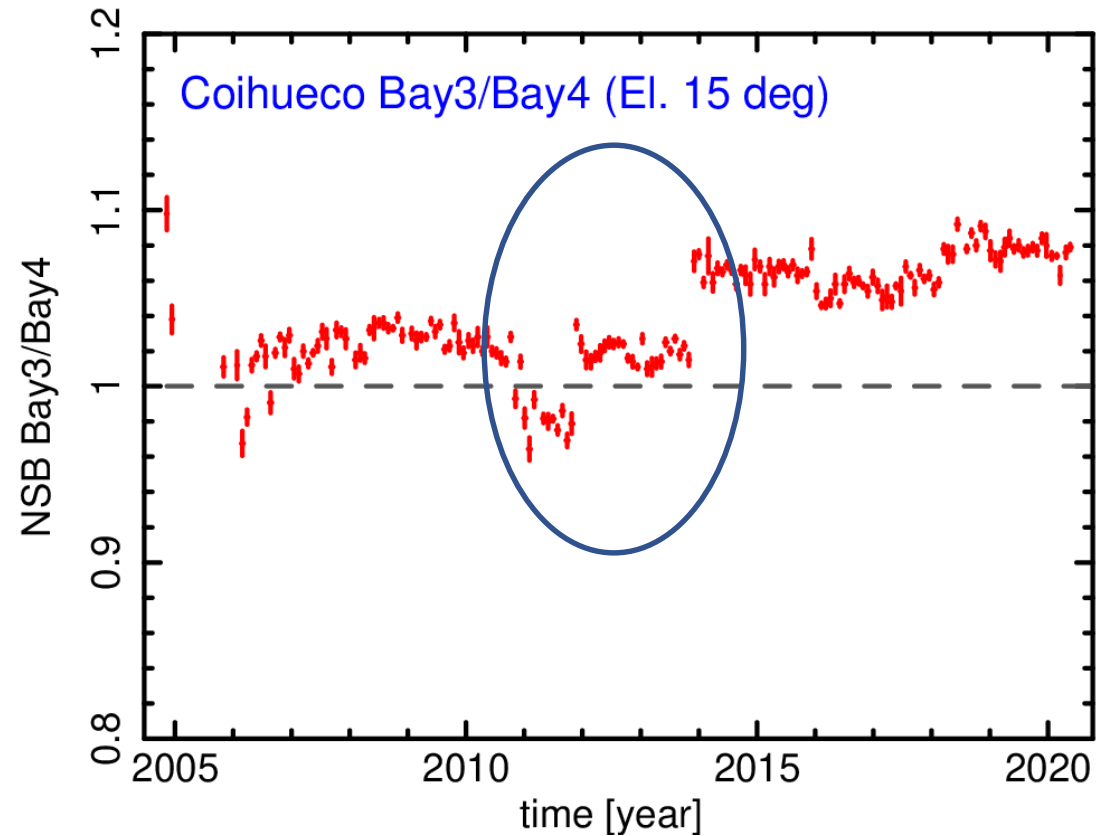
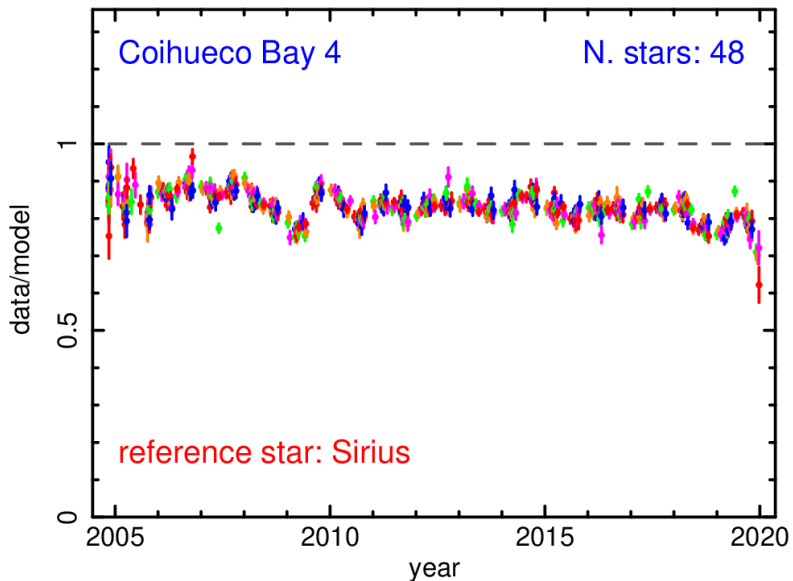
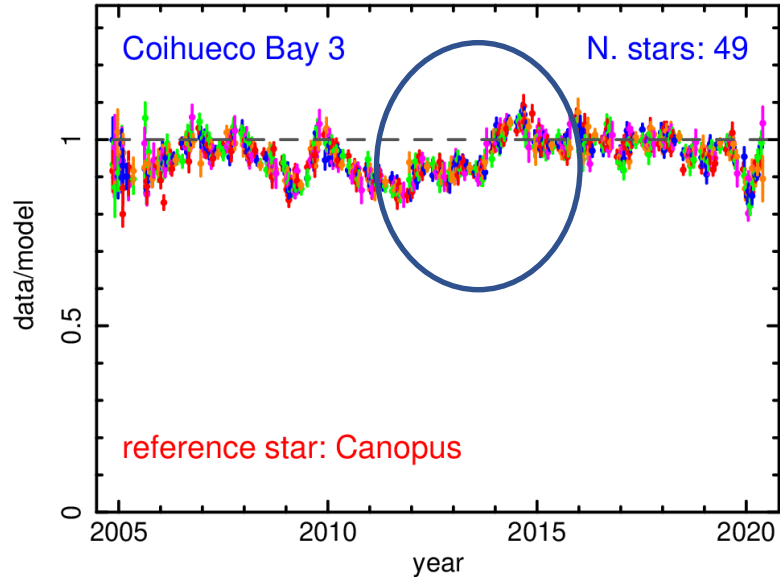
Comparison with diffuse NSB ratio: Coihueco Bays 4,5



On 11/06/2016 Bay 5 mirrors were dismounted, cleaned with deionized water, mounted back and aligned.



Comparison with diffuse NSB: Coihueco Bays 3,4



Both 'stars tracks' and 'diffuse NSB' analysis show the presence of significant discontinuities in Bay 3 efficiency in the period 2011-2014

TO BE CONTINUED