DGFI SLR Contribution

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DGFI SLR contribution

Delivered Sinex files

- 3 free weekly normal equations
- software used: DOGSOC 5.0, DOGSCS 5.0
- solved parameters:
  - station coordinates, selected biases
  - polar motion, UT1
- Satellites used: Lageos1/2 and Etalon1/2
- arc depended parameter
  - weak constraints
  - eliminated
- period: Aug.10 – Aug. 30 2008
- models IERS Standards
- biases ILRS/AWG

DGFI SLR contribution, Models

- same as in ILRS/AWG processing
- gravity field: GGMS02 up to 30,30
- GOT99B Ocean tide model
- trop. refraction model: Mendes-Pavlis
- Ocean Loading GOT
- no Atmospheric loading
- Nutation IAU 2003
- Fixed centre of mass correction (no station dep.)
- Third Body JPL DE405

- apriori values
  - SLRF2005
  - IERS EOPC04

Statistic of SLR data used

Mean weekly orbital fit [cm]

	Lageos1	Lageos2	Etalon1	Etalon2
Aug. 10-16	1.2	1.7	1.4	1.5
Aug. 17-23	1.4	1.2	0.9	1.0
Aug. 24-30	1.4	1.5	0.9	1.0

Number of observations per weekly arc

	Lageos1	Lageos2	Etalon1	Etalon2
Aug. 10-16	1981	1660	190	251
Aug. 17-23	1685	1624	260	203
Aug. 24-30	1956	1748	282	292

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Station	Lageos1	Lageos2	Lageos1	Lageos2	Lageos1	Lageos2
McDonald			1	1		
Yarragadee	21	23	13	19	20	17
Greenbelt	2	1	13	4	4	1
Monument Peak			1		1	1
Hartebeesthook	11	8	5	4	6	4
Zimmerwald	16	13	15	12	25	22
Mount Stromlo	14	14	22	19	15	16
Riyadh	9	2	8	3	8	2
Herstmonceux	10	7	5	4	7	2
Matera	21	18	26	19	20	12
Wettzell	6	5	7	8	16	10
All stations	181	136	182	131	190	124

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Station	Lageos1	Lageos2	Lageos1	Lageos2	Lageos1	Lageos2
Simeiz	8		11		10	
Riga	2					
Katziveli					6	
Haleakala	3	5	7	8	5	8
Papeete	2	2	1	1		
Changchun	8	2	7	1	7	
San Juan	11	19	12	17	12	20
Concepcion	3	1	1	2		
Borowiec	2		2		2	
Shanghai	3				3	
San Fernando	8	2	6		6	1
Simosato	4	3				
Potsdam	4	1	3			

Statistic of SLR data used, all stations Etalon1/2

Station	Etalon1	Etalon2	Etalon1	Etalon2	Etalon1	Etalon2
Yarragdee	2	4	3	4	3	2
Changchun	3	2	3	1	3	3
Mount Stromlo	2	2	2	1	3	2
Graz	3	4	4	3	3	3
Herstmonceux	2	3	1		2	2
Matera	1	1	4	4	2	2
San Juan	5	6	5	3	5	5
Zimmerwald	4	5	4	5	7	8
Wettzell		2	1		2	2
Riyadh			1		1	1
Greenbelt						1
Katziveli					2	3
Monumnet Peak				1		
Shanghai	1					

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## Lageos residuals of week Aug. 10 – 16
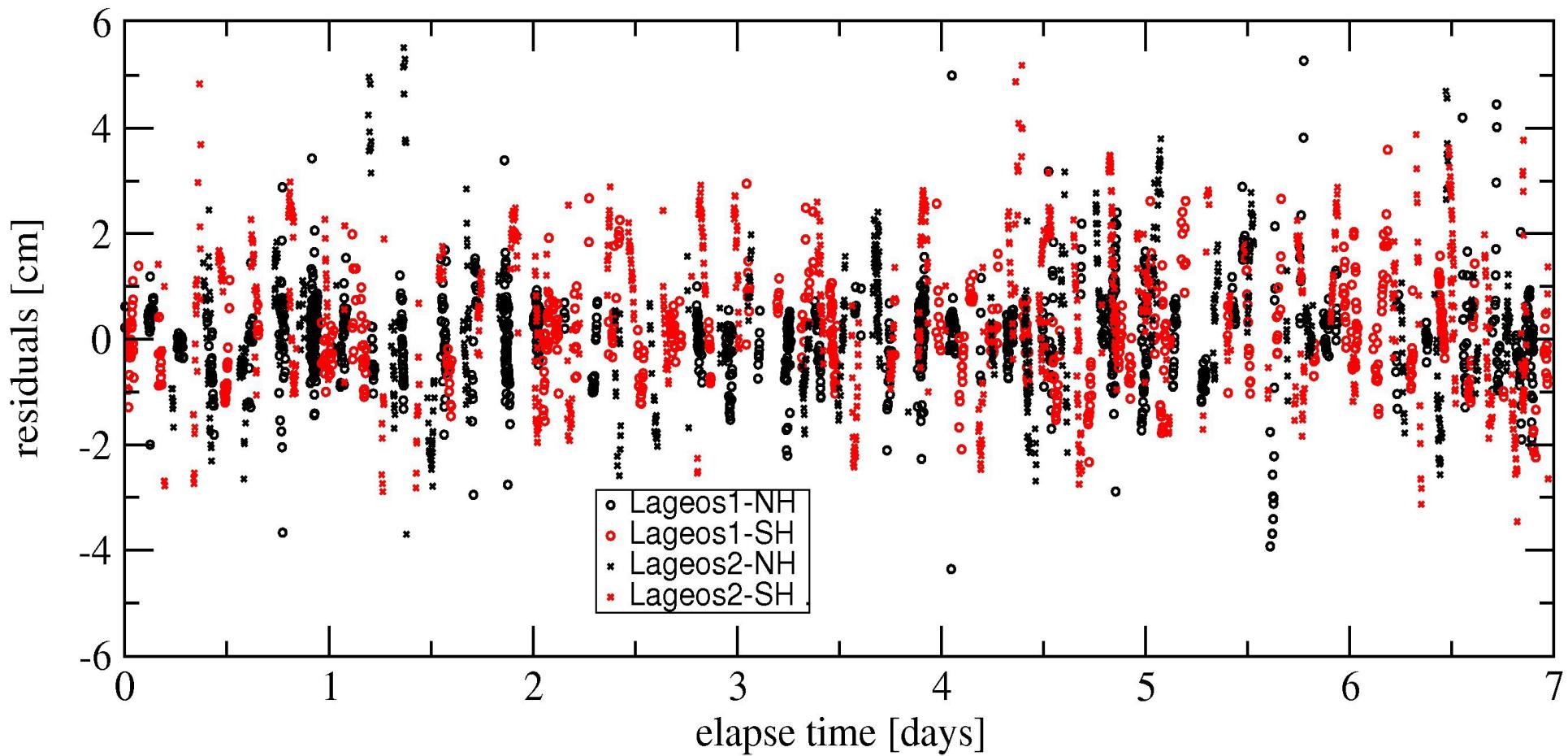
Northern hemisphere, L1: 1302 L2: 724
•**Southern hemisphere, L1:   696 L2: 936**

Etalon residuals of week Aug. 10 – 16
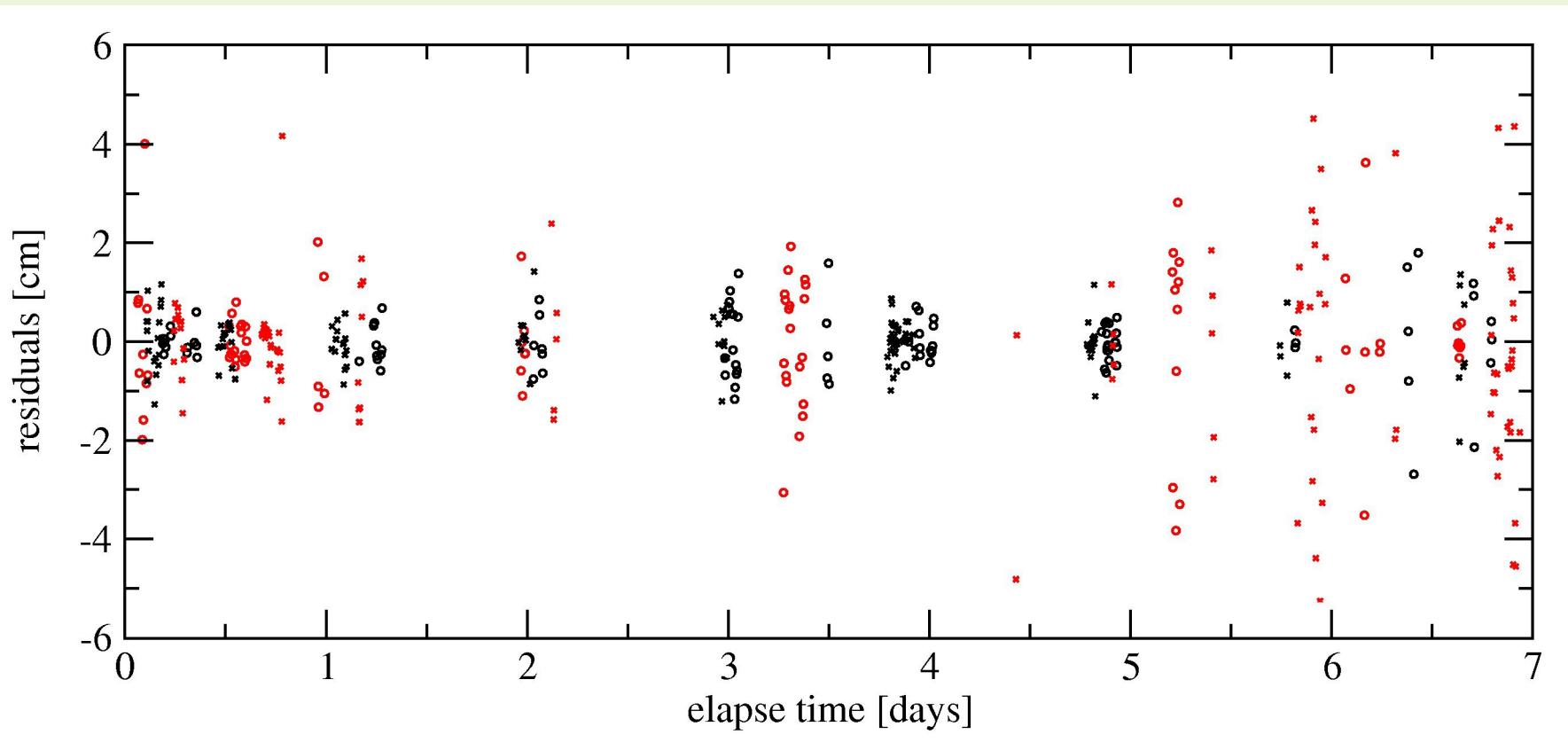
Northern hemisphere, E1: 105 E2: 131
•**Southern hemisphere, E1:   85 E2: 120**