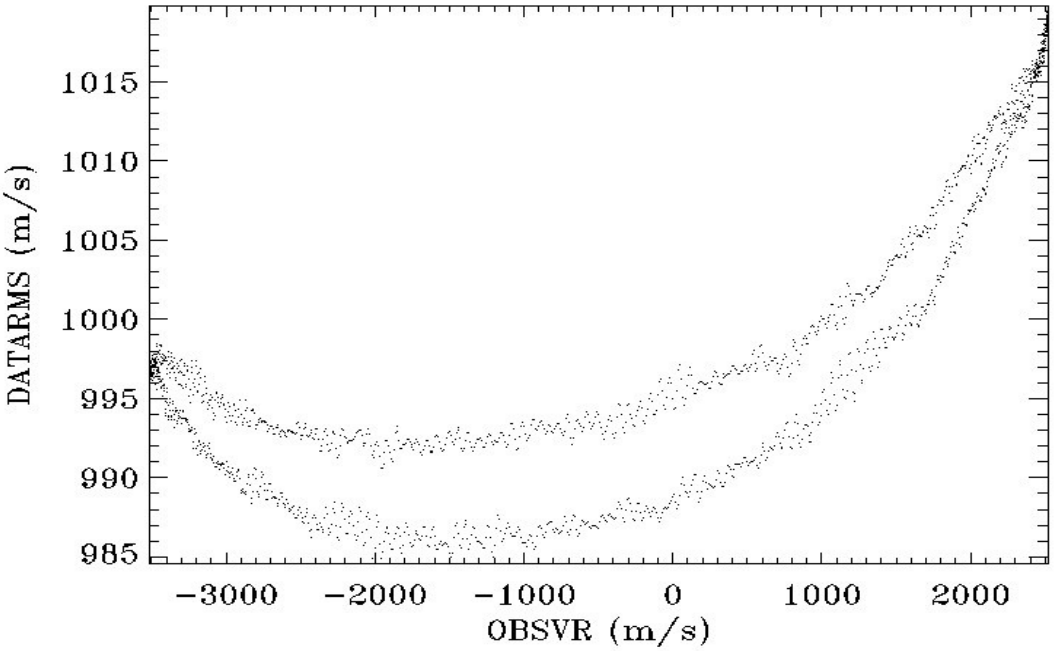
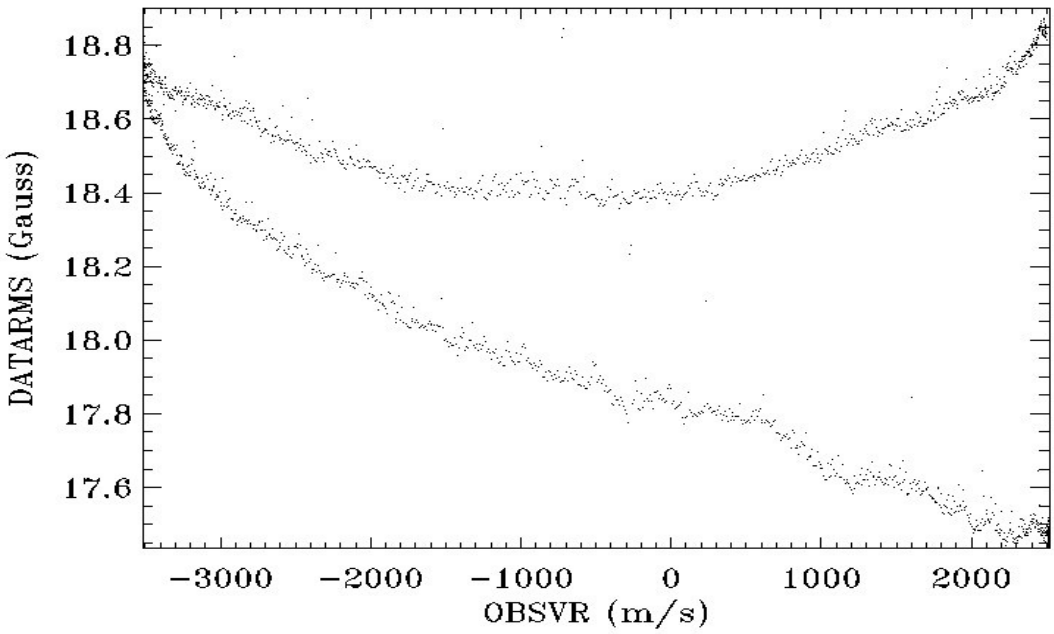
- **DATARMS** (rms variation within 99% of the solar radius) for the Dopplergrams and l.o.s. magnetograms depend on OBS_VR

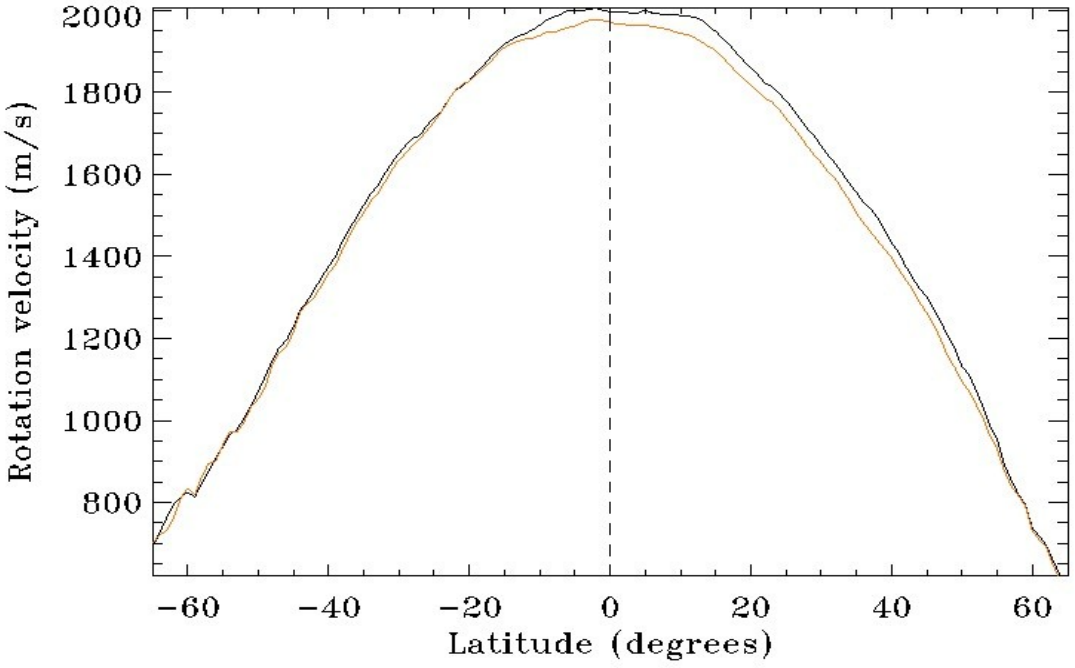
Example, daily variation of DATARMS on the Dopplergrams of October 10, 2010 (peak-to-peak: 3.3%):



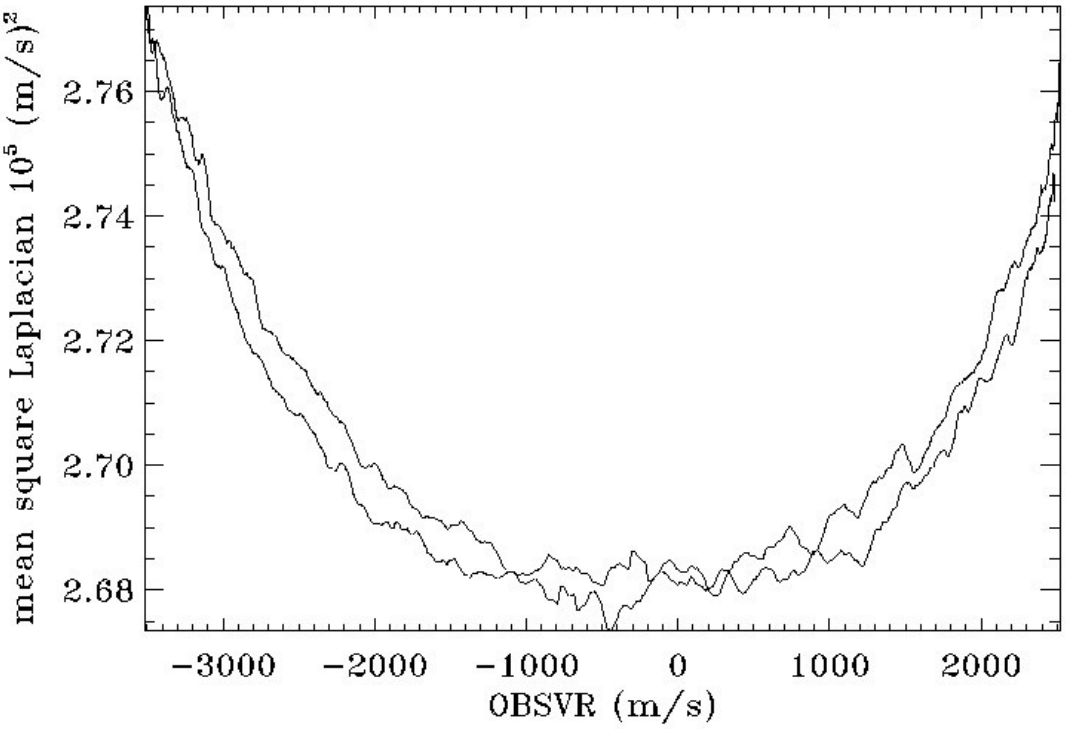
Daily variation of DATARMS on the l.o.s. magnetograms of October 10, 2010 (peak-to-peak 7.7%):



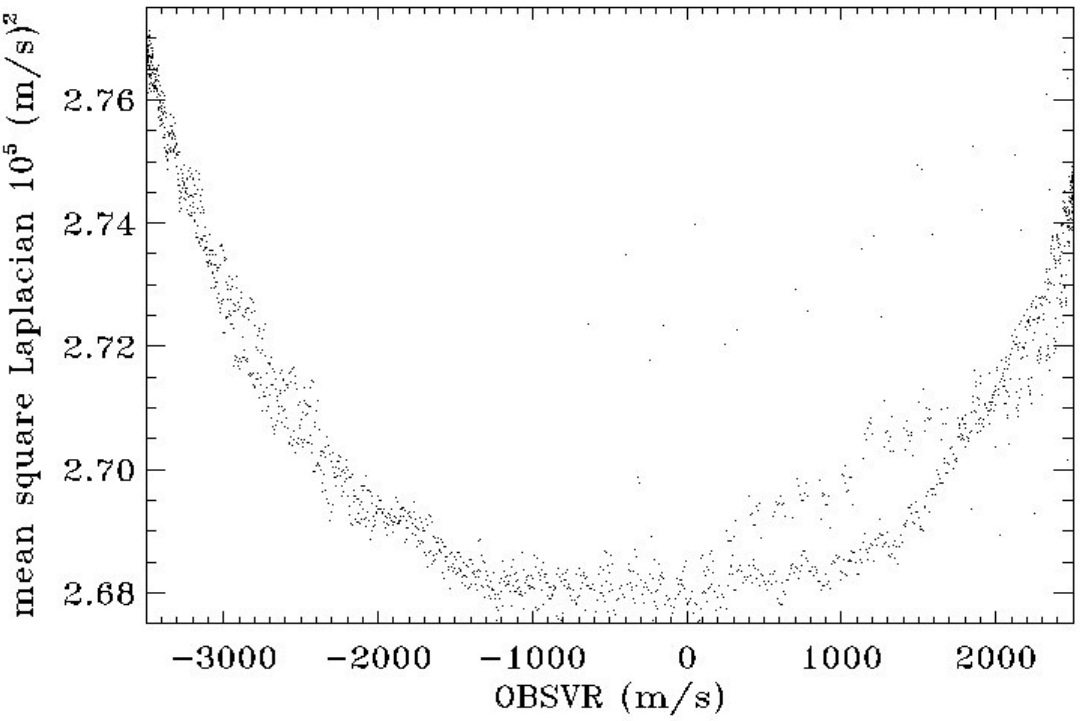
- The **solar rotation rate** depends on OBS_VR. Example: the rotation rate for October 10, 2010, as a function of latitude and for two values of OBS_VR (about +2500 m/s in black, and -3400 m/s in red). The mean rotation rate at the equator is 1993.8 m/s, with a peak-to-peak variation of 44 m/s.



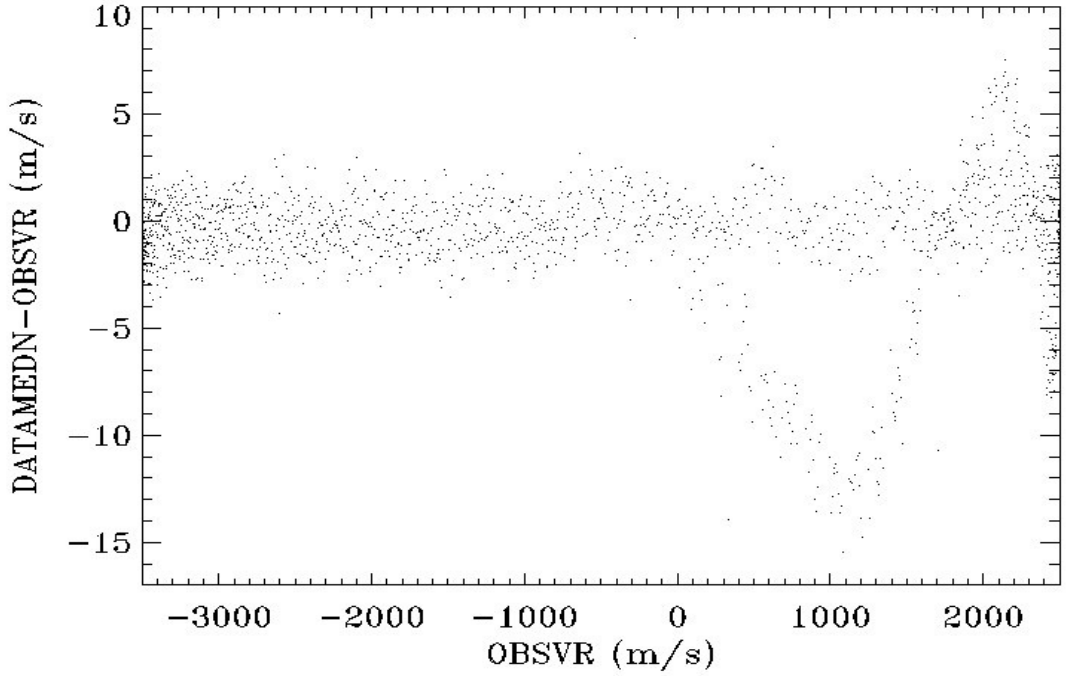
- The amplitude of the **mean square Laplacian** (calculated over 99% or the solar radius) depends on OBS_VR. Example, for October 10, 2010 (peak-to-peak variation in power=3.6%, in amplitude: 1.8%).



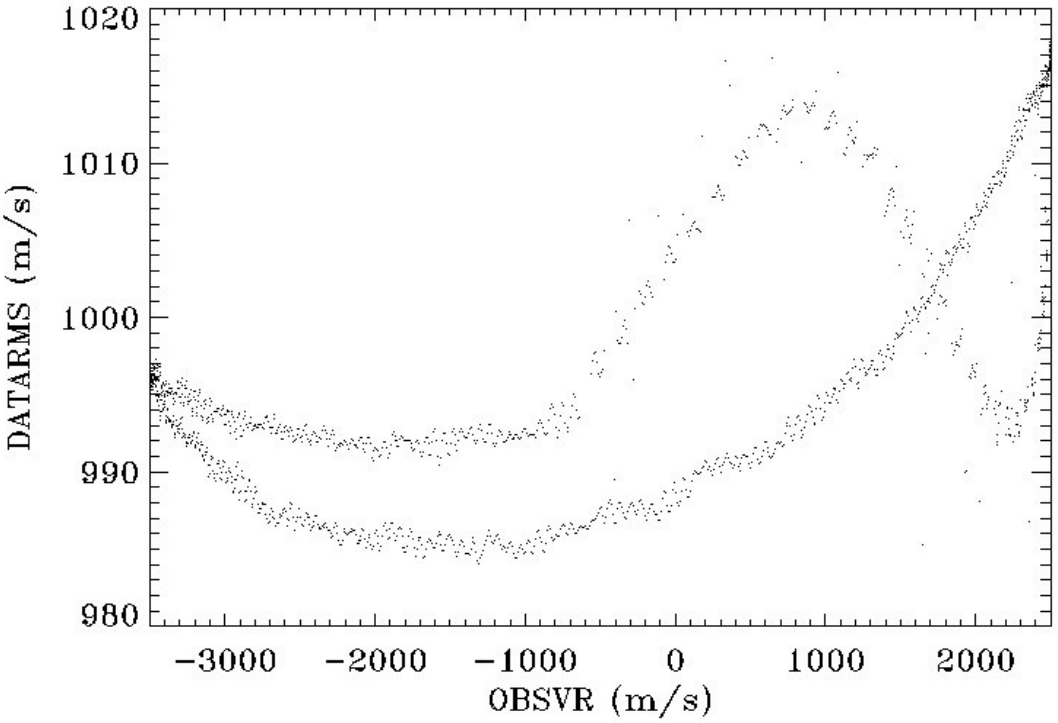
- During a **SDO roll on October 12, 2010**, we could test the spatial dependences of some physical quantities.
  For instance, the mean square Laplacian varied during the day as:



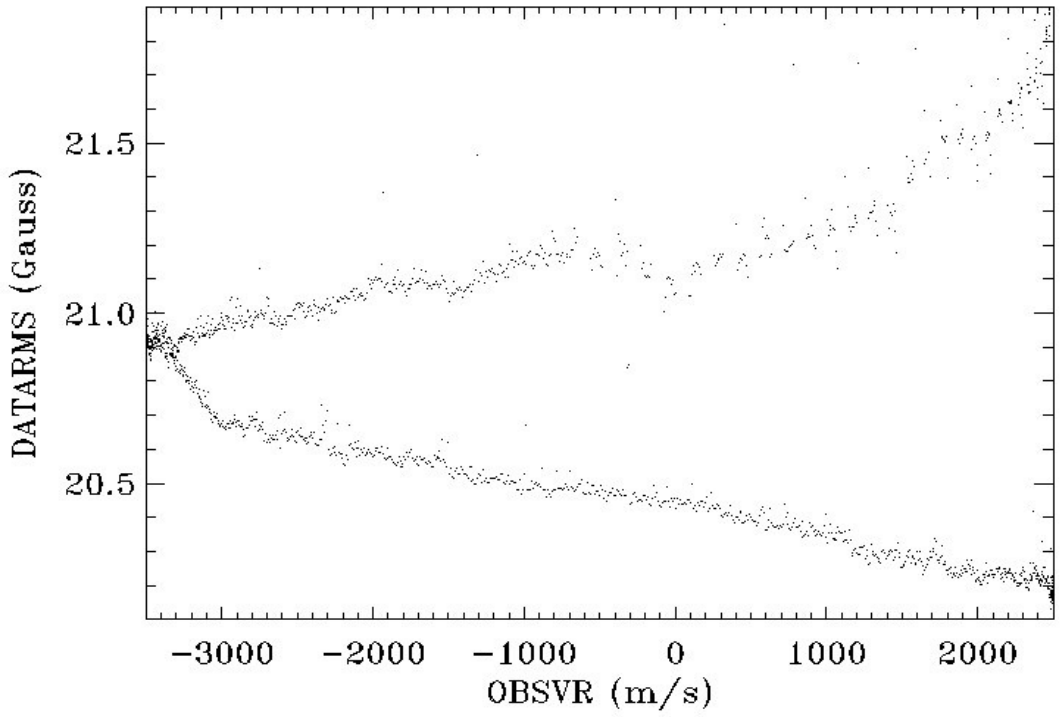
While the DATAMEDN (median value of the velocity over 99% of the solar radius) for the Doppler velocity varied as:



and the DATARMS varied as:



DATARMS of the l.o.s. magnetogram varied as:



DATAMEDN of the magnetogram varied as: