Chapman Comments

A few thoughts on sunspots and the sunspot number

 $R_z = R_I = Wolf nr. = ISSN ?$

On using MDI continuum

Beware of using MDI pseudo-continuum Images

Spot contrast criterion is a function of velocity (east vs. west hemisphere)

Drop in no. of Large Spots

The drop in the number of large spots from cycle 22 to 23 shows:

Either fewer OR shorter-lived large spots.

Either way, the "dynamo" has changed.

Stable Sunspot Numbers

Should we be using higher quality imaging to observe ever smaller spots?

Or, as Ludmany said, should we omit spots below a certain area limit?

SDO/HMI can see lots of very small pores. Will counting these alter the sunspot no., R_z?

R_z vs. Spot Area

A linear regression of annual means of R_z vs. SFO spot corrected area gives:

$$R_z = 7 + - 8 + (0.087 + - 0.003) * A_s$$

R² = 0.9748, N = 24

Time span, 1986 - 2009