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Poster
The Sun at solar minimum mostly exhibits low-latitude coronal holes, which are the basis of high-speed streams (HSS) of solar wind. These coronal holes are in preferred longitudes, and exhibit prograde motion, since they can be clustered around the equator which rotates faster than the poles. The coronal holes are disrupted by coronal mass ejections (CMEs), and reform after the CMEs at their preferred longitudes. For all but solar cycle (SC) 21-22, the preferred longitude start for coronal holes of the polarity of the northern hemisphere (NH), is ~270° longitude. The long-lived coronal holes can also restart at their preferred longitude after drifting ~90° prograde (eastward). For Even-Odd solar cycles, the NH polarity coronal holes can be the sole source of HSS at Earth. However, in Odd-Even solar cycles, there is usually an earlier string of long-lived coronal holes with southern hemisphere (SH) polarity that is ~90° west of the NH coronal holes. SC 23-24 is distinguished from the 4 previous solar minimum cycles by 2 or 3 sets of SH low latitude coronal holes, but only one set of NH polarity coronal holes. The coronal hole areas were also larger than in previous cycles.
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