

**DYNAMICS OF HIGH TEMPERATURE PLASMA IN
THE SOLAR ATMOSPHERE FROM OBSERVATIONS OF
THE CORONAS-F SATELLITE**

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We review main findings of the CORONAS-F mission concerning dynamics of high-temperature plasma in the solar corona. The CORONAS-F satellite covered the maximum and decay phase of the last solar cycle and provided unique information on the origin and physical characteristics of solar plasma in the temperature range of about 10 MK. From 2001 to 2005, the dynamic of several hundreds high-temperature objects (cusp-like regions, hot flare loops, above-loop-top sources) were observed with temporal resolution less than 1 minute. We present these results of observations and provide their theoretical interpretation from the point of the current views on magnetic reconnection and energy release in the solar corona.