

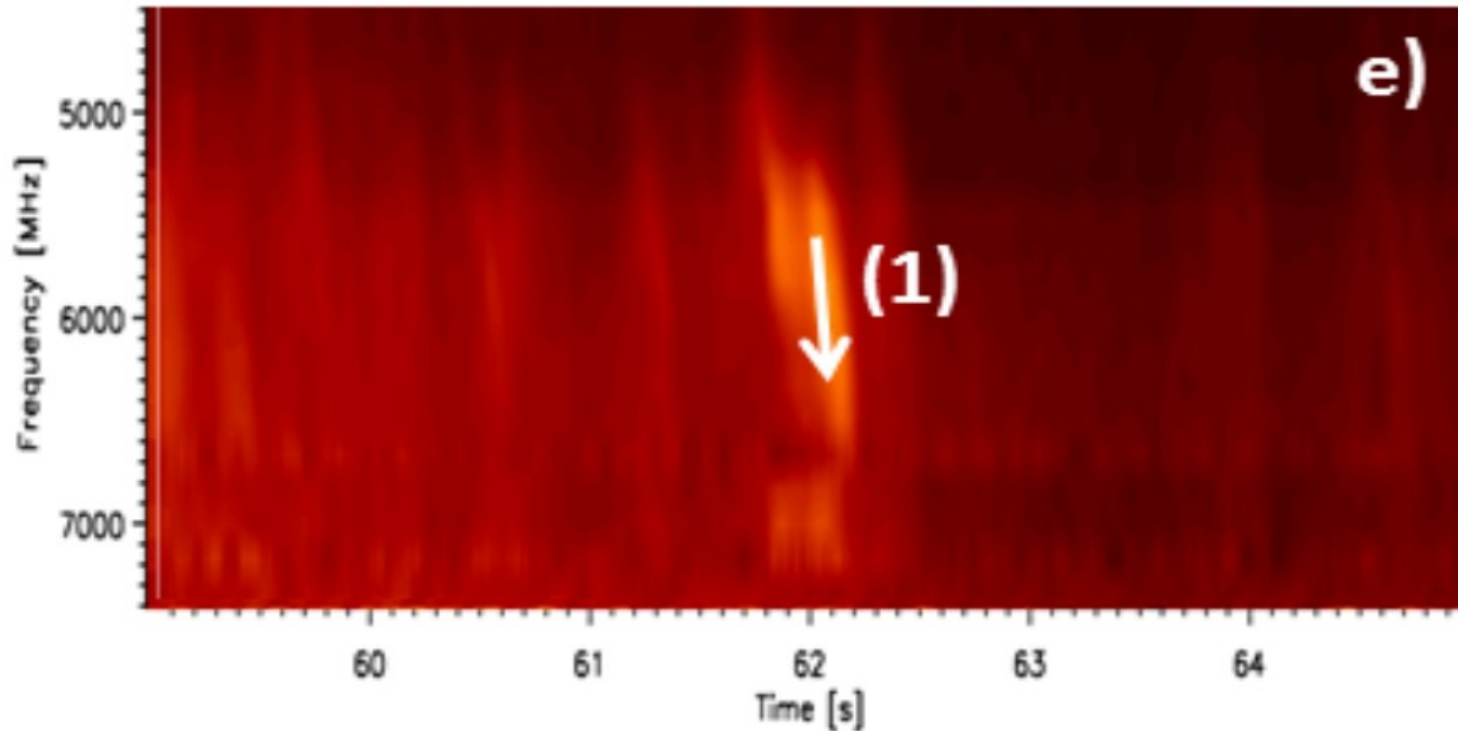
On the excitation mechanism of sub-second pulses of the 2011 August 10 solar flare

H. Meszarosova, L. Kashapova, S. Tokhchukova, and JR

- subsecond pulses occurred during the C2.4 flare (2011/08/10 9:33:57–9:35:07 UT), pulses around 09:34:59 UT
- RATAN-600 radio telescope + Broadband Microwave Spectropolarimeter: 3797–8057 GHz
- RHESSI: HXR observations with energies also above 25 keV
- AIA/SDO: 1700,304, 1600, 171,193,211 335, + 094,131 Å
- HMI/SDO: LOS magnetograms
- STEREO A: 394, 195 Å

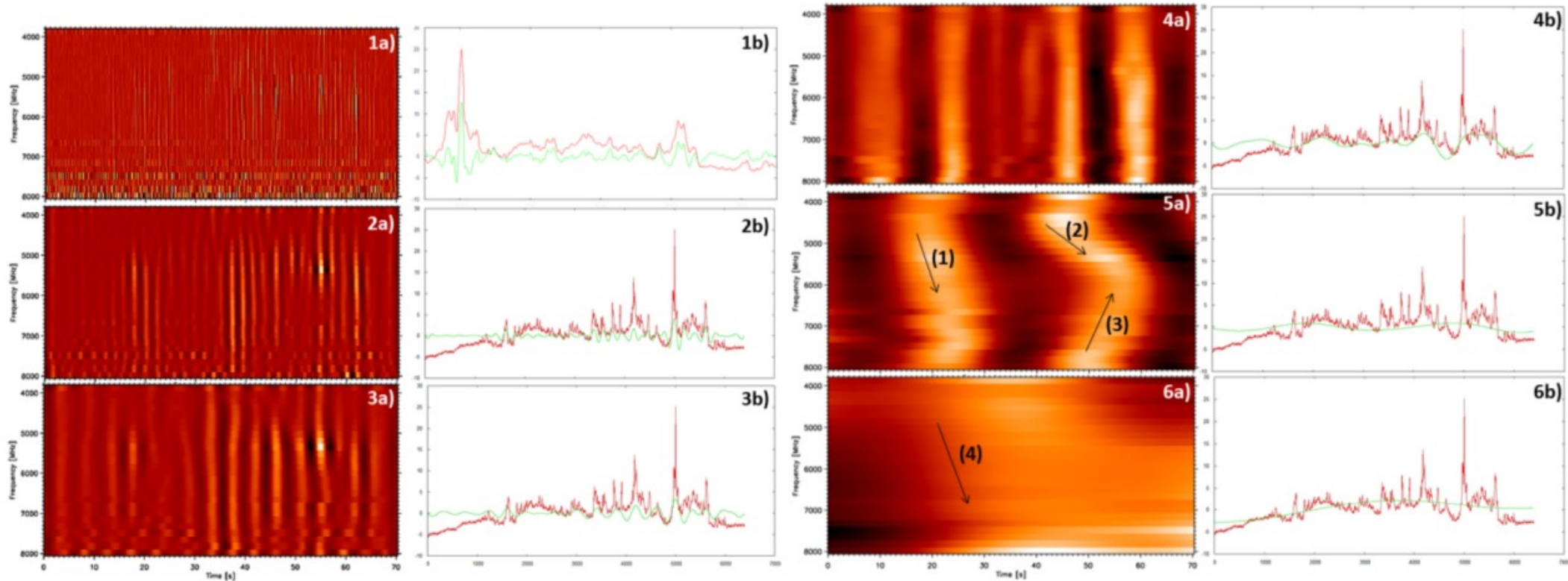
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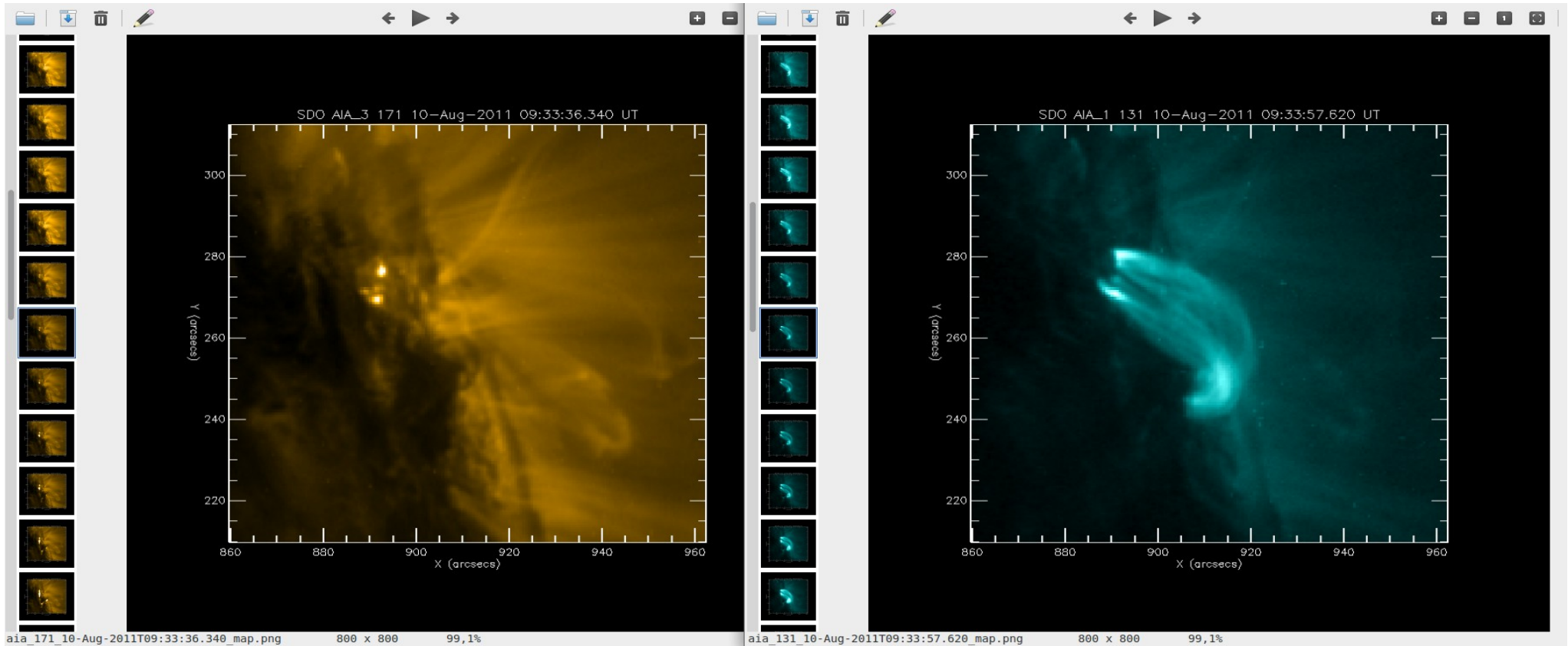
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- Data reduction (with some improvements added to the „classical“ reduction routines):
AIA/SDO: 1700,304, 1600, 171,193,211 335, + 094,131 Å
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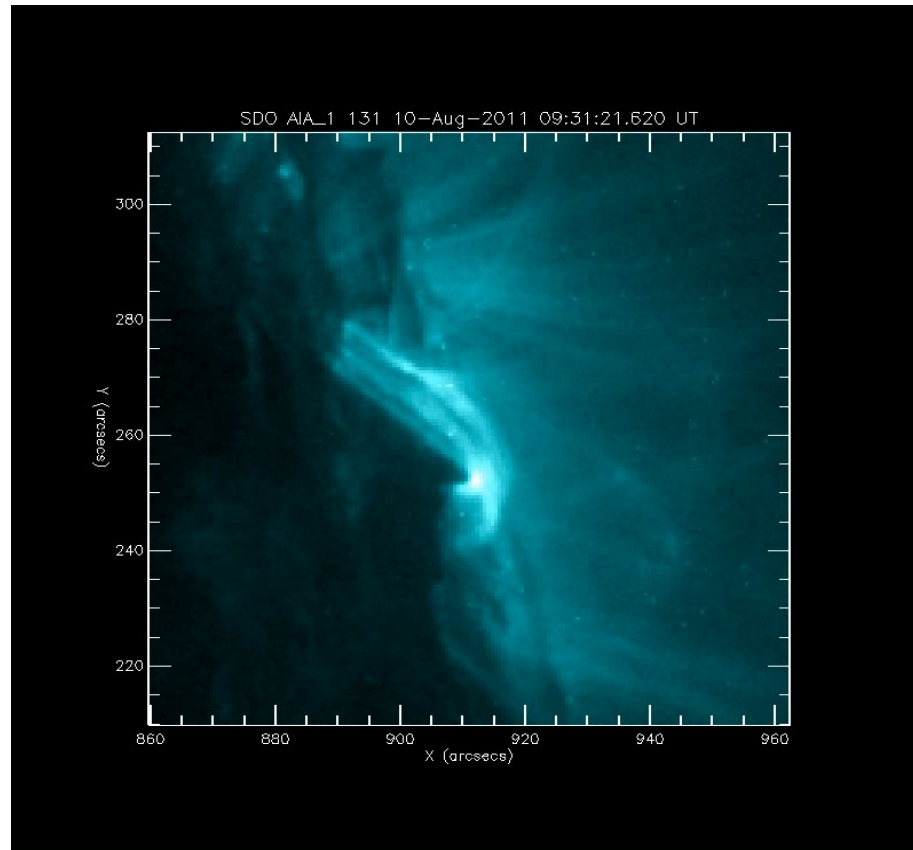
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Table 1 The primary ions observed by AIA. Many are species of iron covering more than a decade in coronal temperatures.

Channel	Primary ion(s)	Region of atmosphere	Char. $\log(T)$
4500 Å	continuum	photosphere	3.7
1700 Å	continuum	temperature minimum, photosphere	3.7
304 Å	He II	chromosphere, transition region	4.7
1600 Å	C IV + cont.	transition region, upper photosphere	5.0
171 Å	Fe IX	quiet corona, upper transition region	5.8
193 Å	Fe XII, XXIV	corona and hot flare plasma	6.2, 7.3
211 Å	Fe XIV	active-region corona	6.3
335 Å	Fe XVI	active-region corona	6.4
94 Å	Fe XVIII	flaring corona	6.8
131 Å	Fe VIII, XXI	transition region, flaring corona	5.6, 7.0

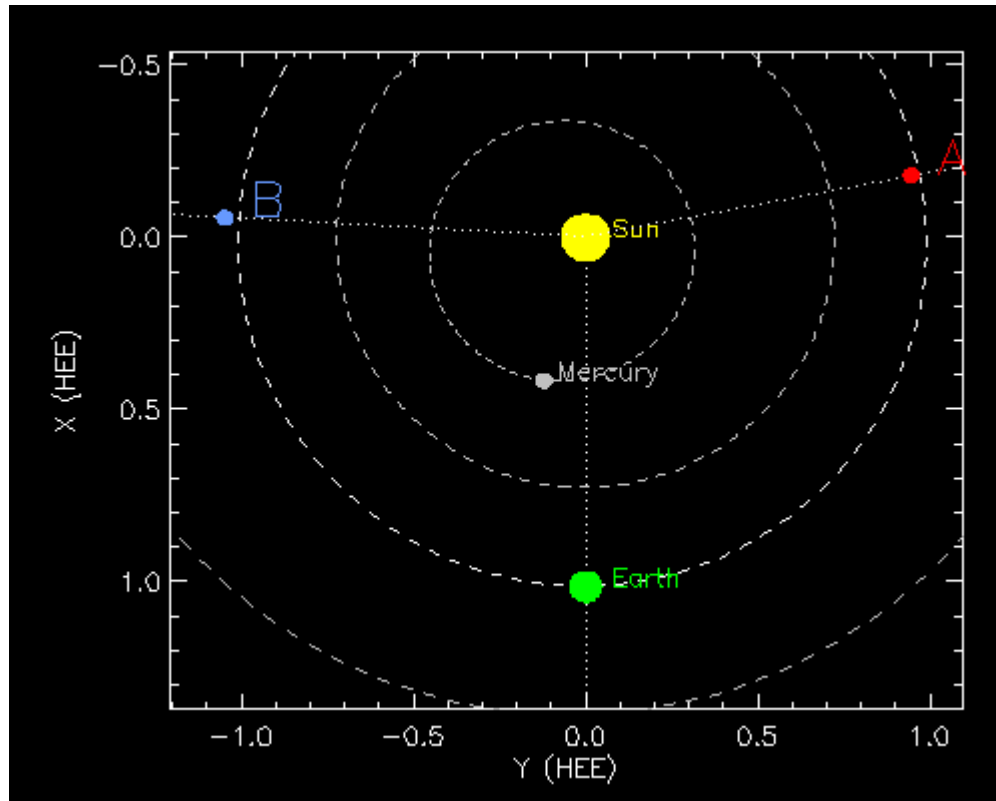
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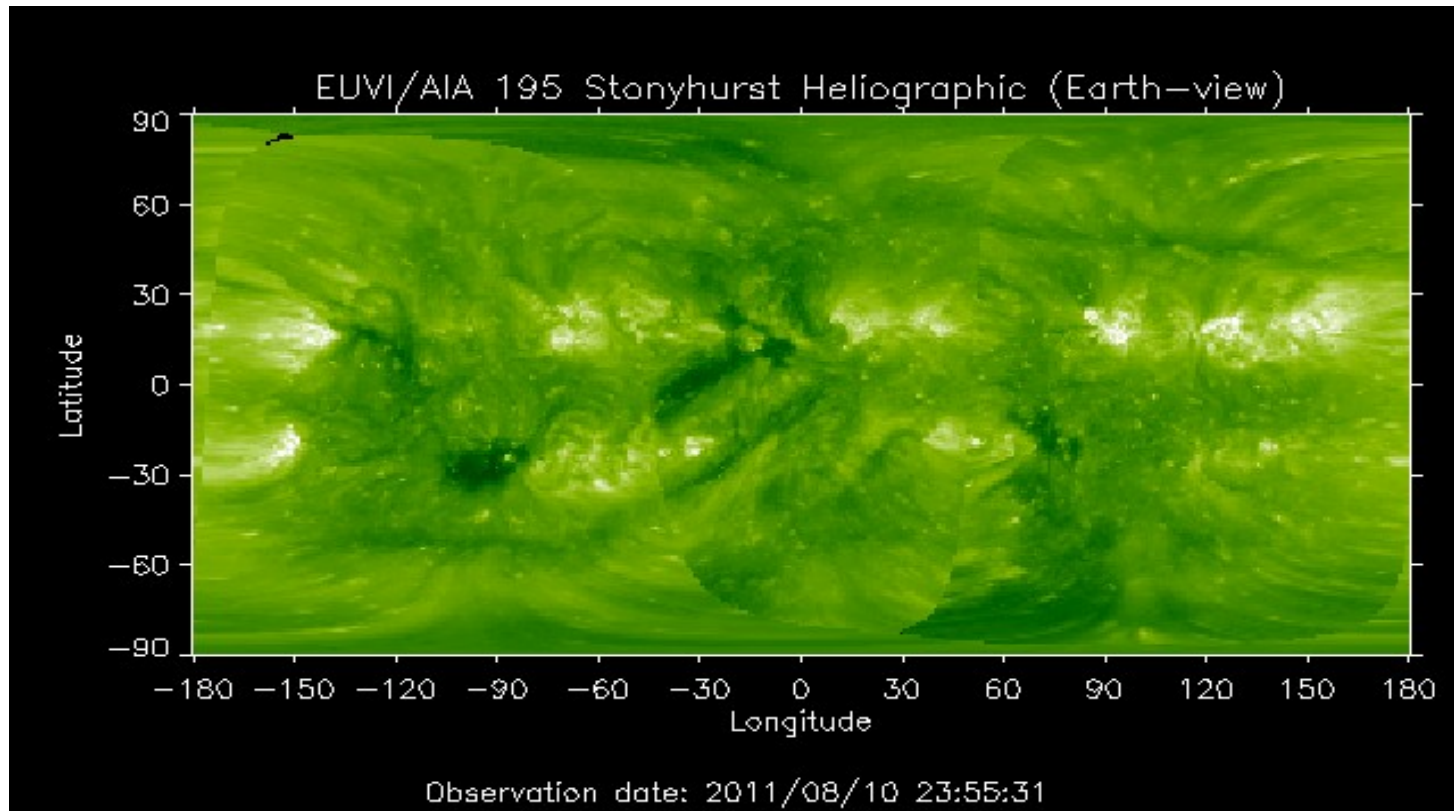
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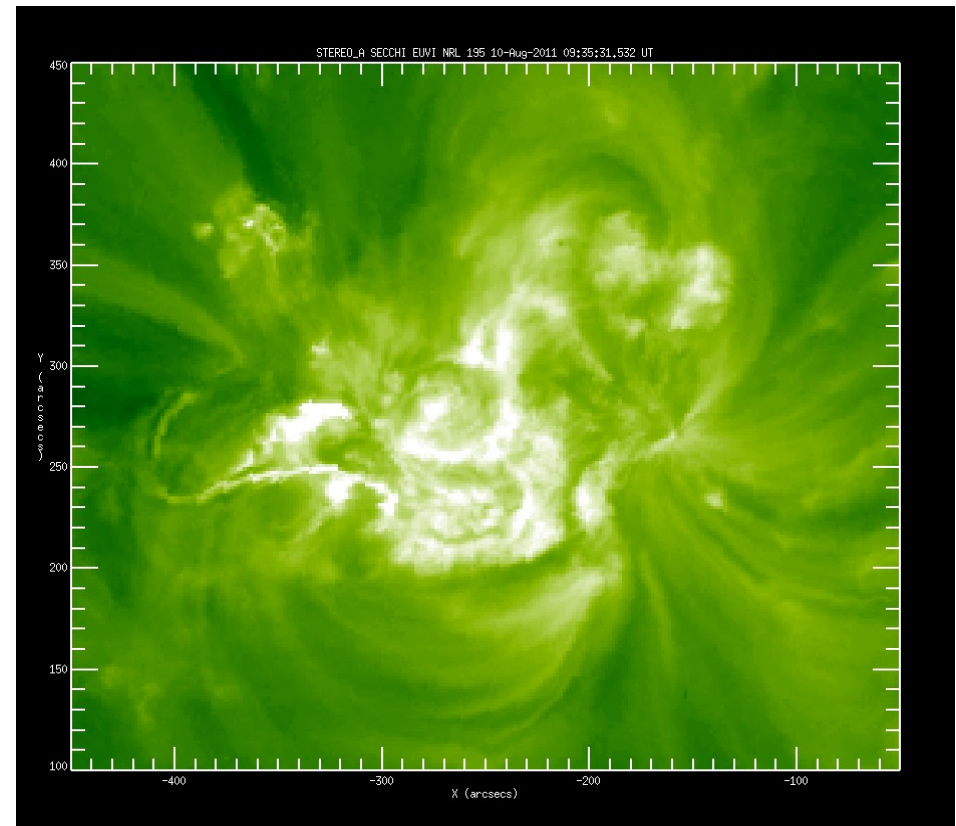
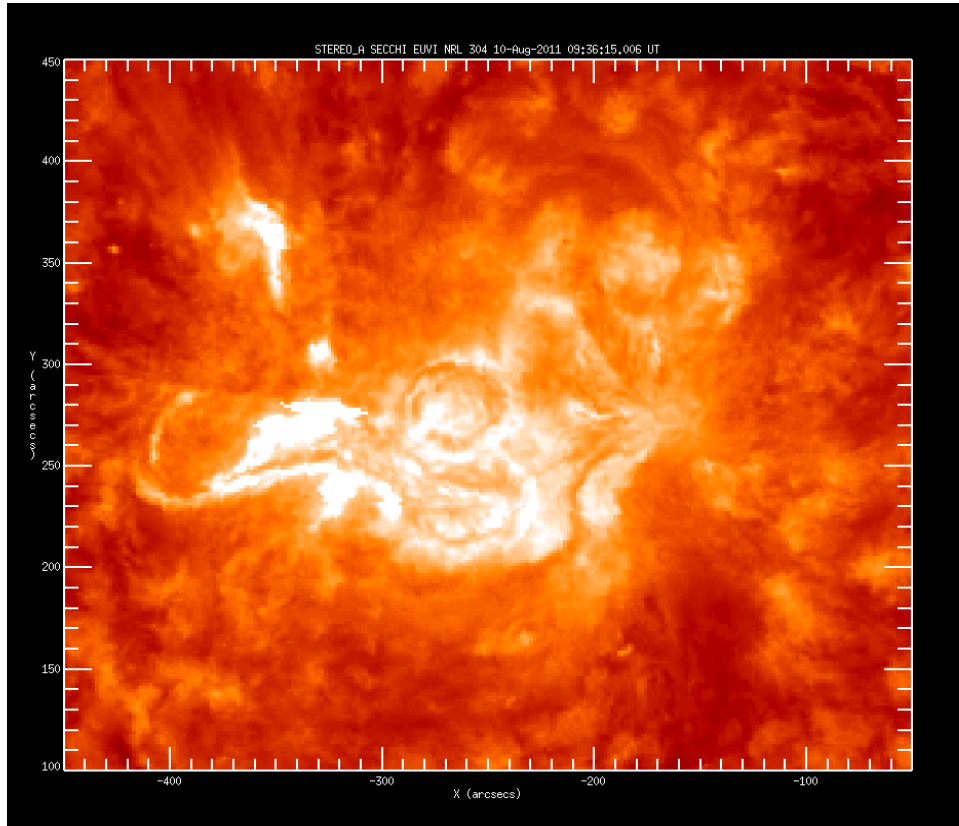
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- Todo list:

- loop geometry and parameters: SCC_MEASURE, FILE_AHEAD, FILE_DIRECT
STEREO A AIA/SDO

- problems with SSW software, with loop height and visibility in STEREO channels

- paper additions, details, final text: november 2015 - HM@AISAS