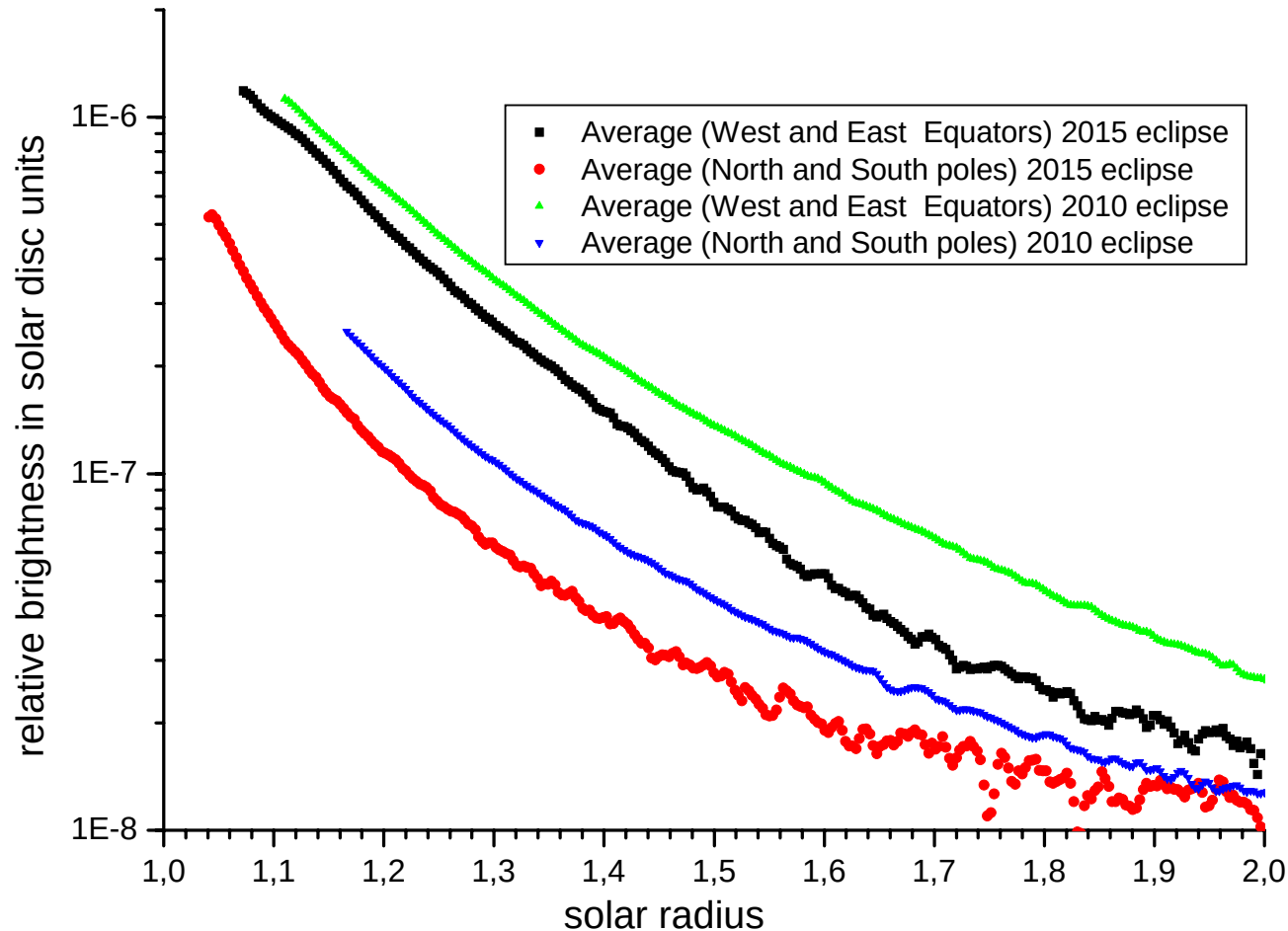


Preliminary comparative absolute photometric analysis of the corona during the 11 July 2010 and the 20 March 2015 total solar eclipses

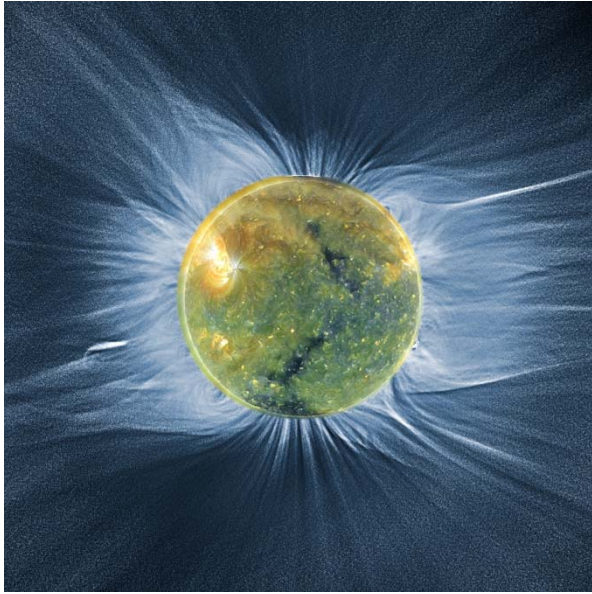
by

Bazin, C, Vilinga, J., Koutchmy, S, Wittich, R. Lamy, Ph. Sevre, F. and Mouette J.

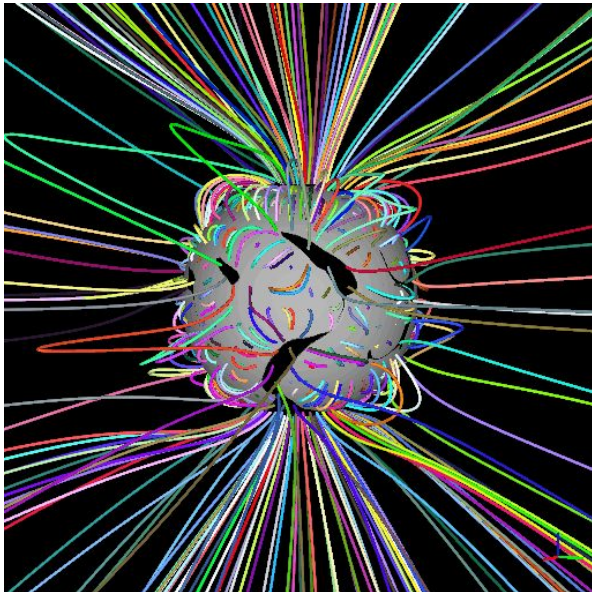
bazin@iap.fr ; jaimevilinga@gmail.com ; koutchmy@iap.fr ; philippe.lamy@lam.fr ; sevre@iap.fr ; mouette@iap.fr



Preliminary comparative analysis of the corona during the 11 July 2010 total solar eclipse



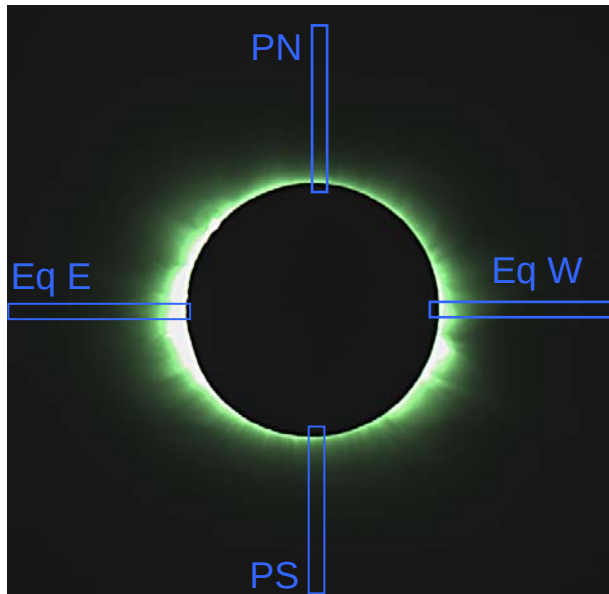
*White light image of the corona
from the total solar eclipse seen in Hao
French Polynesie
Superposition of the disc images in 171Å,
193Å from AIA/SDO*



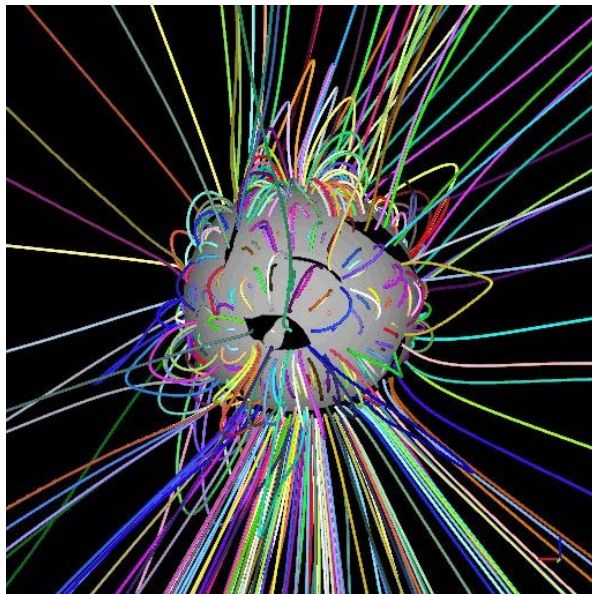
Plot of the field lines in the 11 July 2010 K-corona

From the Predictive Science Modeling support
For Heliospheric and Magnetic Imager
http://www.predsci.com/hmi/field_lines_plot.php

Preliminary comparative analysis of the corona during the 20 March 2015 total solar eclipse



White light image of the corona in Svalbard in blue, location where the 20 Mm radial cut are taken, for performing the photometric analysis



Plot of the field lines (20 March 2015) from the code available at http://www.predsci.com/hmi/field_line_s_plot.php

Regions: 1.005<Rsol<2	11/07/2010 Eclipse Scale height Mm and temperature K	20/03/2015 Eclipse Scale height Mm and temperature
East	86 Mm (T = 1,693 MK)	57 Mm (T = 1,122 MK)
West	69 Mm (T = 1,358 MK)	103 Mm (T = 2,027 MK)
North	78 Mm (T = 1,535 MK)	61 Mm (T = 1,200 MK)
South	65 Mm (T = 1,279 MK)	71 Mm (T = 1,397 MK)

Comparison of the scale height showing a temperature dependance

November, L. & Koutchmy, S. 1996, *ApJ*, **466**, 512, doi :10.1086/177528

Experience onboard Falcon 7X



WL image (J. Vilinga)