

THEMIS: a calibration-free solar telescope

V. Bommier¹ and B. Gelly²

¹ LIRA, Observatoire de Paris, 5 place Jules Janssen, 92190 Meudon, France

² THEMIS, Tenerife, Canary Islands, Spain

contact e-mail: *V.Bommier@obspm.fr*

THEMIS was initially built as a calibration-free telescope, with the polarization analysis performed in F1 focus, before any oblique reflection. Recently, the telescope was improved with installation of an Adaptive Optics apparatus. Owing to an adaptation of all the oblique reflections below the telescope, we would like to show you that it remains a calibration-free telescope, even if the two beams able to provide the light polarization, are now separated before the cameras only. We present you raw images on a sunspot, with two lines: one polarisable line, which displays the sunspot magnetic field polarization, linear and circular, and one unpolarisable line, which does not display any polarization, which shows that the telescope is free of any instrumental polarization, because, if this line had showed any polarization, this polarization would have been of instrumental origin. Those images were recorded on 2024 September 12th.