

Broad band photometry of solar corona 1995

P.S.M. Aleem and K. Sundararaman

Indian Institute of Astrophysics, Kodaikanal, 624 103, India

Photograph of the solar corona taken on October 24, 1995 at Kalpi was analysed. Malin's unsharp masking technique was used to bring out the hidden details from the over exposed (10s) corona. The result shows polar plumes up to $2 R_{\odot}$.

We used a 30cm coelostat, a red broad band filter and a 15cm objective providing an f/15 beam. 70mm Kodak 2415 emulsion was used to obtain the exposures of the solar corona. The observations were taken at Kalpi on October 24, 1995. The sky was photometric and we obtained good photographic records.

Using Malin's (1978, 1981) unsharp masking technique - this technique is derived from procedures used in the graphic arts industry where a blurred positive is combined with the original negative to equalize the characteristic curves of colour separations and to emphasize fine detail in the final photographic result. We prepared a number of masks of different densities on Kodak 4127 film. This work was done on 10s exposure of solar corona. Here, we could notice polar plumes up to 2 solar radii in the north eastern direction. Further work is continued to get high resolution pictures and the results will be published in due course.



Photograph of the solar corona October 24, 1995, prepared through an unsharp mask.

References

- Malin F.D., 1978, Nature, 5688, 591.
- Malin F.D., 1981, The Journal of photographic science, 20, 199.