



## **Can the polarization tagging of the ionogram trace deceive the autoscaling methods? The Learmonth case**

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With the advent of new technologies a digital ionosonde is able to separate the recorded information of the ordinary and extraordinary waves in terms of polarization using a cross antenna system. This polarization tagging of the ionogram trace certainly represents a big aid for the autoscaling methods relying on such an information. Nevertheless in certain cases errors in the polarization tagging can occur and such autoscaling systems can be deceived with a consequent incorrect elaboration of the trace. On the contrary Autoscala does not rely on this tagging but it needs that both the ordinary and extraordinary traces are recorded. In this work we investigate this issue focusing our attention on the ionograms recorded at Learmonth (22.3 S, 114.1 E) which is a good station to illustrate the problems of echo tagging.