



## **Multiple reflections from the F2 layer as a cause of autoscaling error: a possible solution**

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When carrying out ionospheric soundings the recorded traces can show multiple reflections from the F2 layer. In these cases softwares able to perform an autoscaling of the ionogram trace can be deceived and the second order F2 layer reflection can be identified as the first order one. Hence the F2 layer parameters are wrongly scaled and as a consequence the electron density given as output is dramatically misrepresented. This work describes a simple filter to smooth out such a problem making the autoscaling more reliable. A dataset of ionograms recorded at the ionospheric observatories of Rome and Gibilmanna was used to test the filter.