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Supporting Information for

**Turbulence Power Spectra in Regions Surrounding Jupiter's South Polar Cyclones
from Juno/JIRAM**

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Introduction

This supporting information provides the PJ9 brightness sample before and after the resampling operation together with the residuals from the comparison (Figure S2) and the χ^2 variation curves relative to the spectral fitting of Figure 3 in the manuscript (Figure S3).

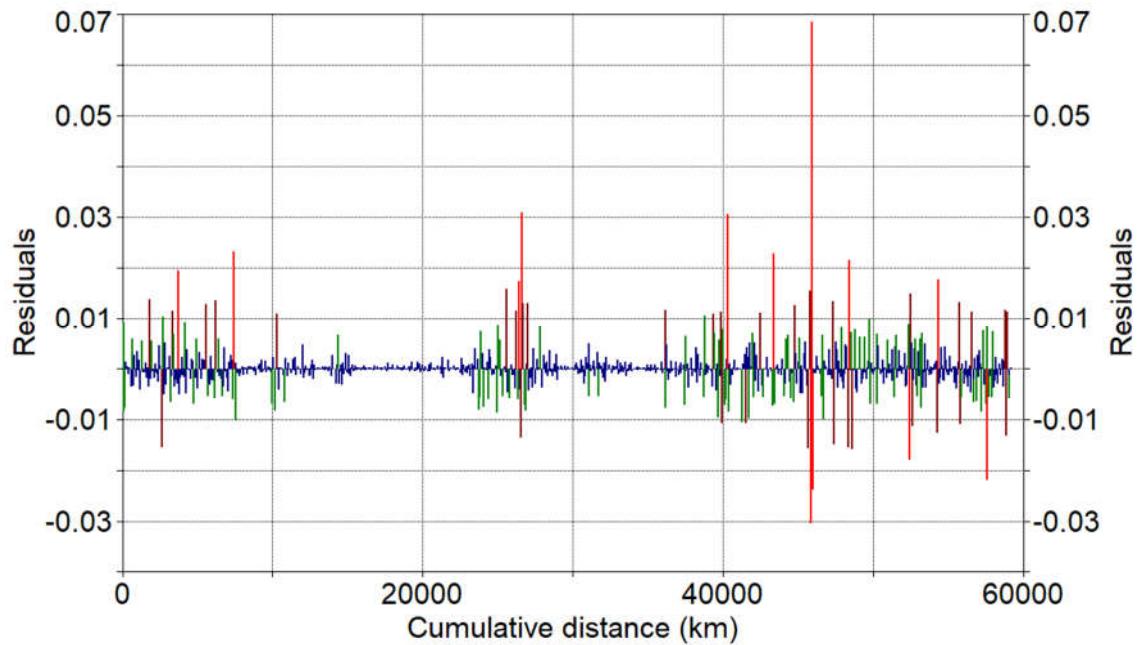
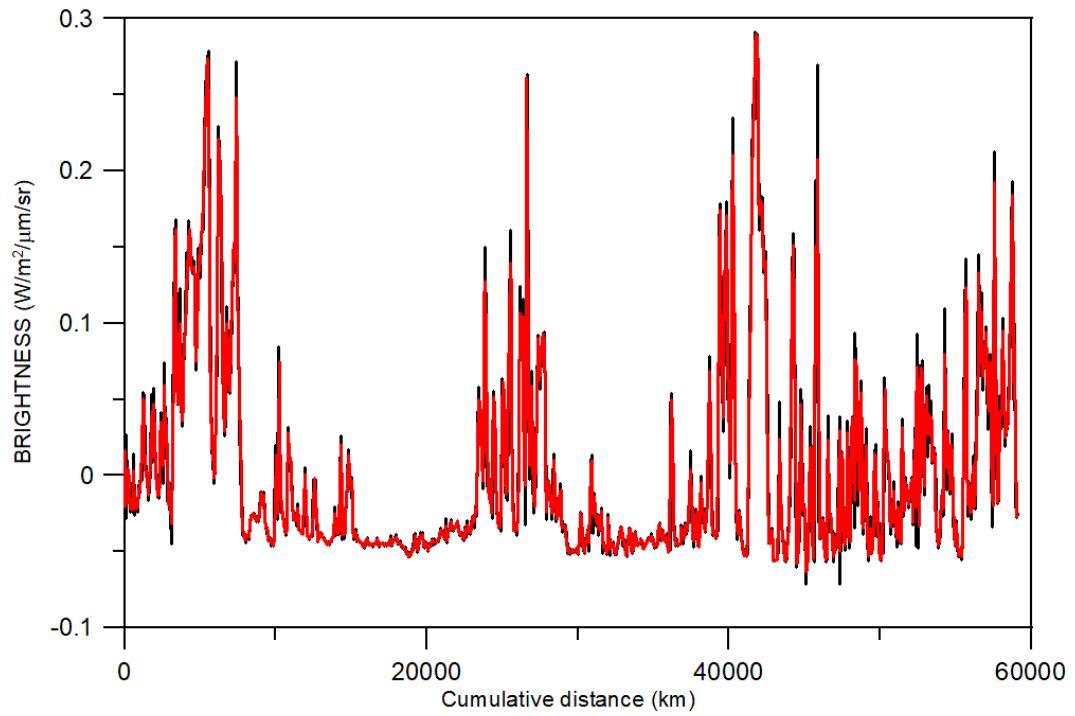
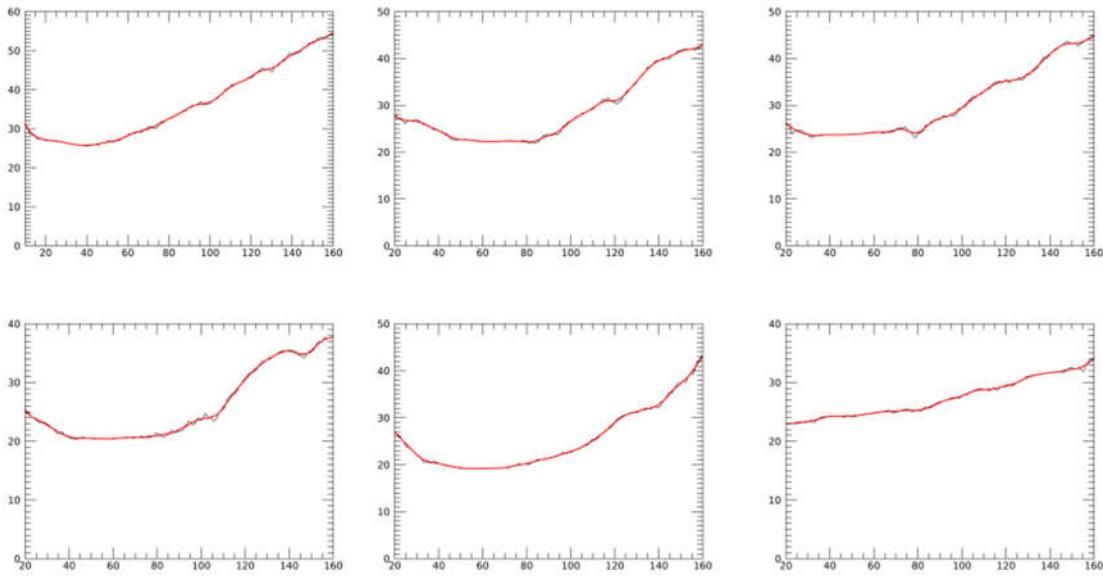


Figure S2. The PJ9 brightness sample before (black) and after (red) the resampling operation; b) the plot of the residuals, intended as difference between the sample data value and the ones predicted from the fit. The color scale is: blue < 1 sd, green < 2 sd, maroon < 3 sd, red > 3 sd.

Poleward



Equatorward

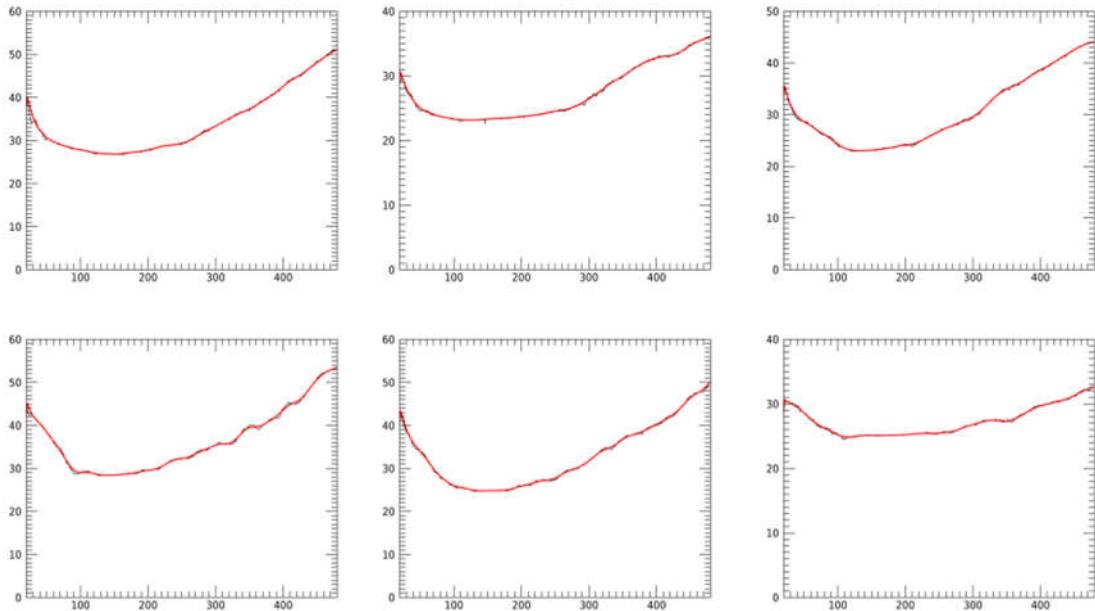


Figure S3. χ^2 variation curves, relative to the spectral fitting calculations producing the slopes reported in Figure 3 of the manuscript, are shown. The wavenumber transition values k_f in Figure 3 have been determined by the correspondent χ^2 curve minima. The progressive position of the free parameter k_f and the χ^2 values are reported on the x- and y-axis respectively.