



## **A search for local variations of CH<sub>4</sub> in the martian atmosphere using PFS/Mars Express**

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We have used the Planetary Fourier Spectrometer (PFS) aboard the Mars Express spacecraft to search for possible enhancements of the CH<sub>4</sub> abundance over specific areas. We have selected the Q-branch of the CH<sub>4</sub>  $\nu_3$  band at 3018 cm<sup>-1</sup>, where the signature of methane is expected to be strong. We have focussed on selected areas over the Mars surface where significant enhancements of CH<sub>4</sub> have been reported by other observations. We will discuss our findings from the PFS and compare them with previous reports of methane variation in the Martian atmosphere.