

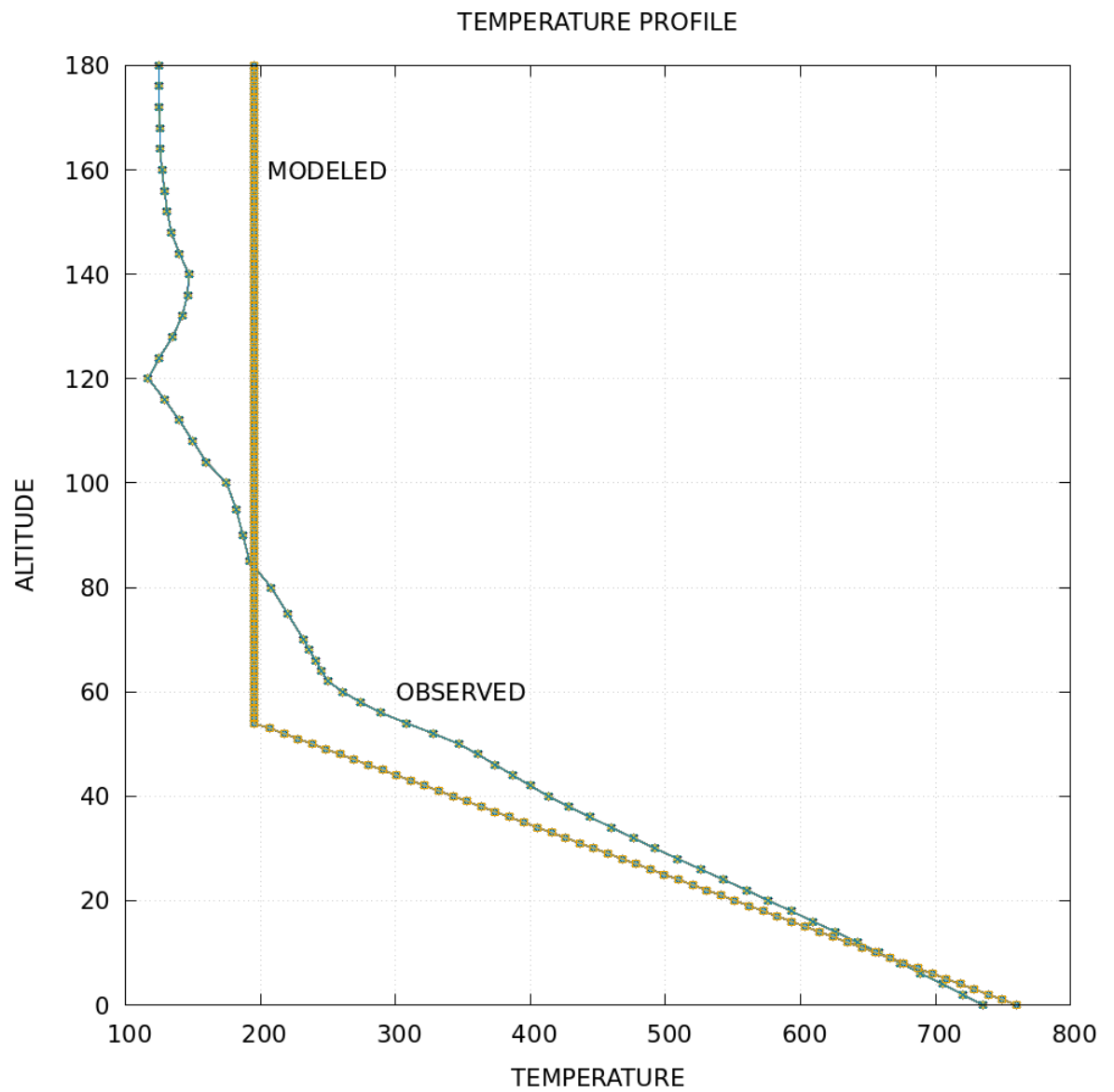
VERTICAL TEMPERATURE PROFILES
OF PLANETS AND TITAN
PLANETARY ATMOSPHERES
ASSIGNMENT 2

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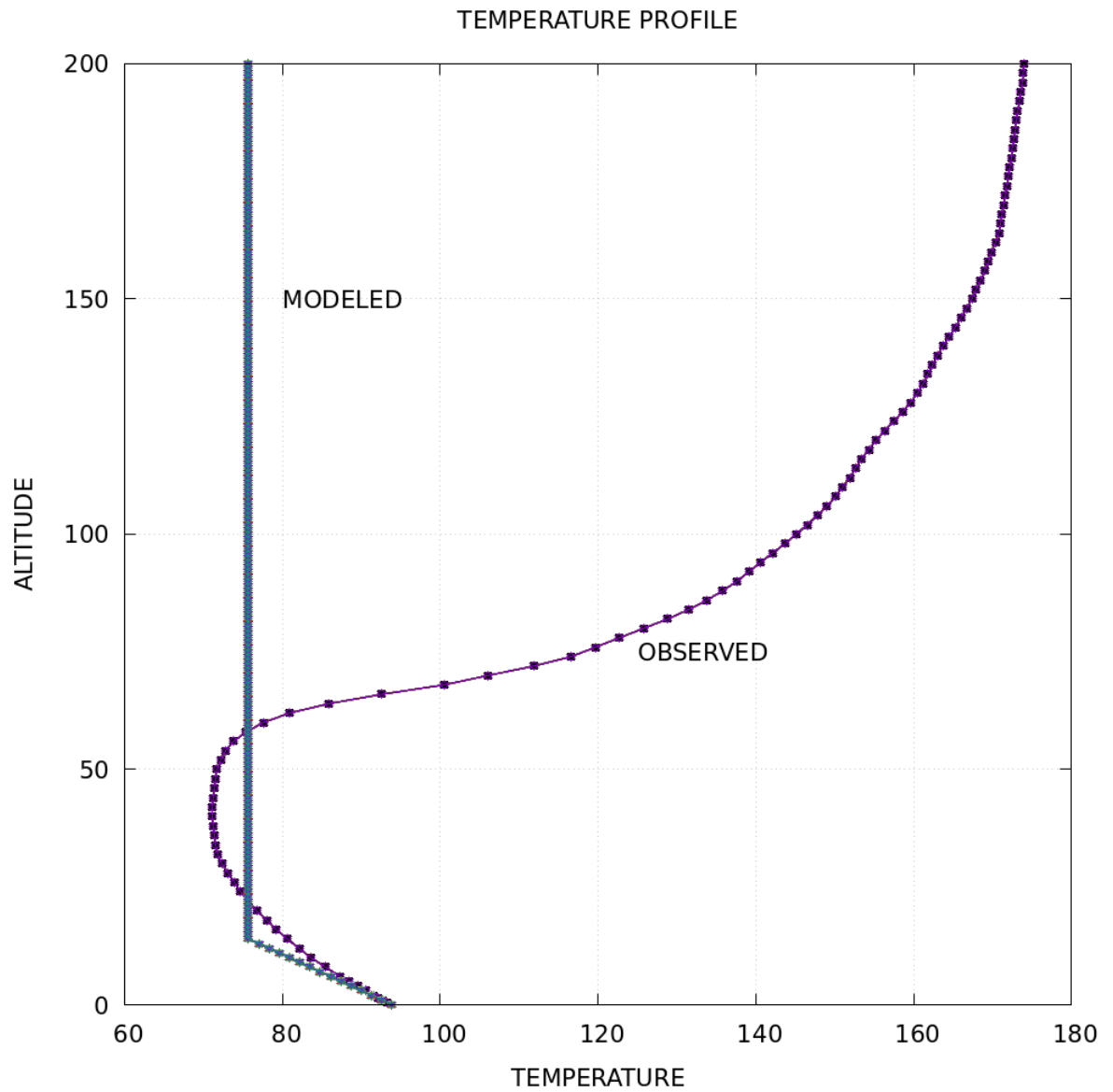
VENUS



Discussion

The vertical temperature profile of Venus is very close to modelled profile.

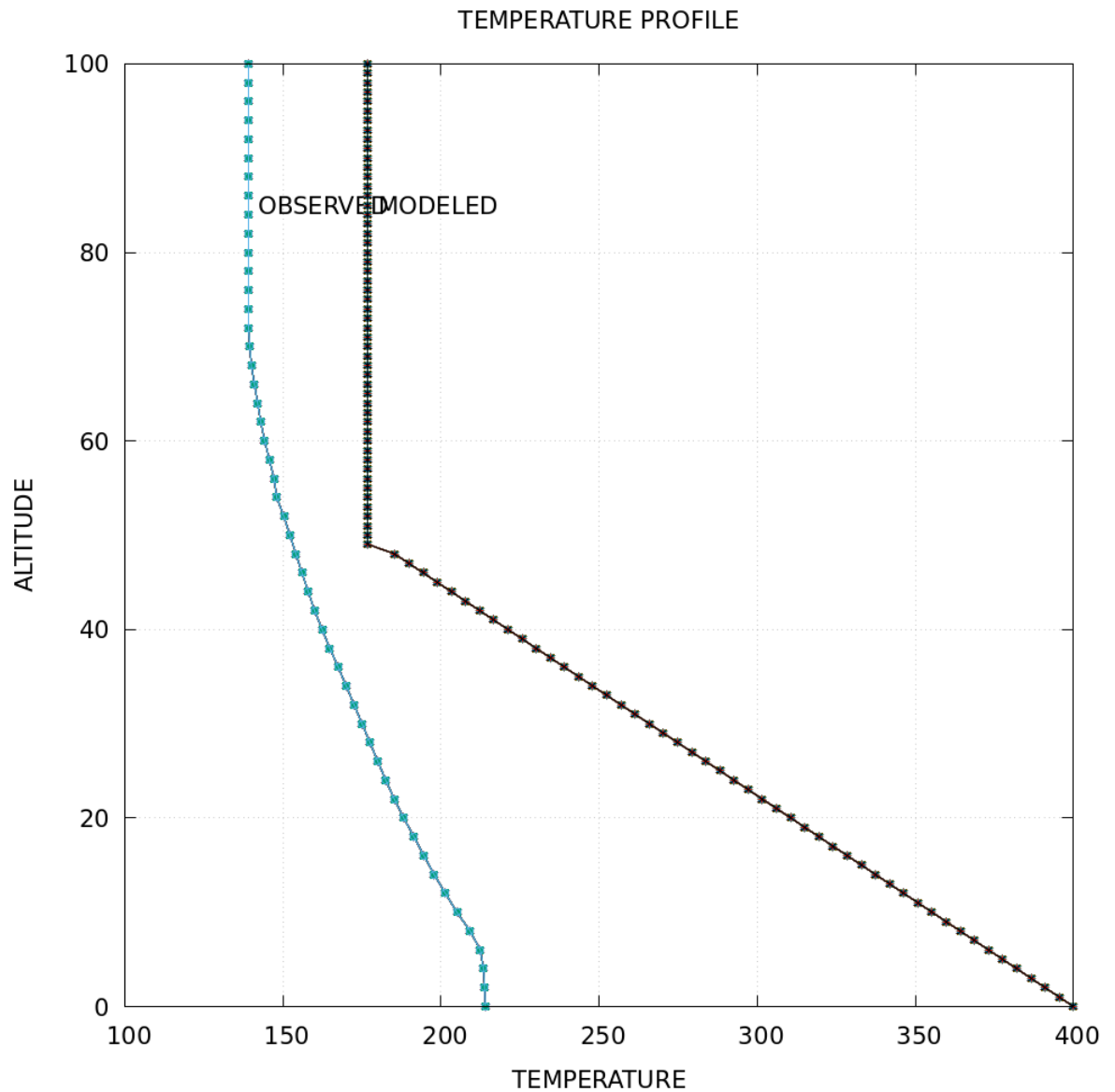
TITAN



Discussion

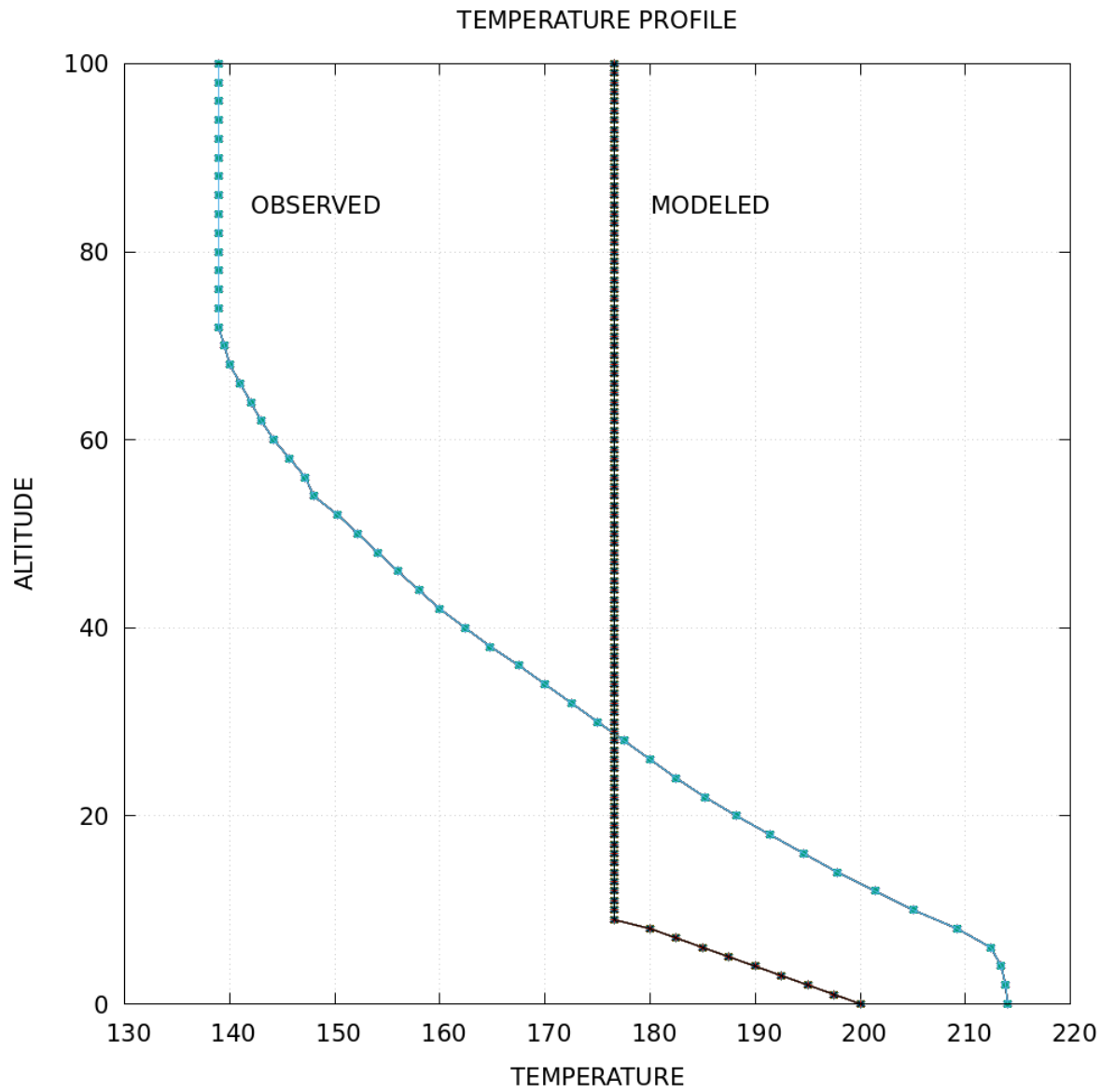
The vertical temperature profile of Titan is close upto 50 km. From 30 km the haze layer starts in Titan, which contains hydrocarbons, deviates temperature profile from modelled profile by absorbing incoming radiation.

MARS



Discussion

The vertical temperature profile on Mars is highly unstable due to frequent occurrence of dust storms. The profile is highly sensitive to day-night cycle and yearly insolation cycle. Above picture is without dust intervention in temperature profile. The modelled profile's deviation is very high from observed profile.



Above profile is plotted with dust intervention. The modelled profile's deviation is very high from observed profile. The slope is low compared to figure without dust intervention