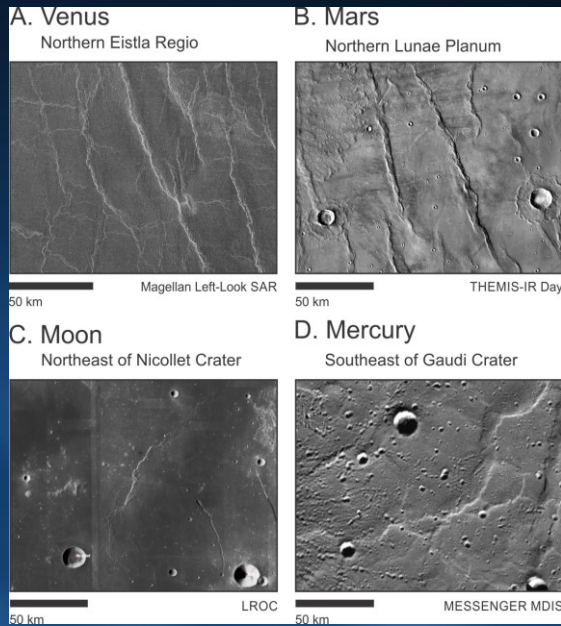


Revealing the shape of Venus' wrinkles

A study of wrinkle ridge shape (morphometry) in the plains south of Eistla Regio, Venus, show that they are similar in size to their counterparts on other planets and likely formed above shallow thrust faults in response to mantle downwelling.

- Unlike wrinkle ridges on Mars and the Moon, the shape of wrinkle ridges on Venus has not been well studied due to the low resolution of the available data.
- We used a new higher resolution topography dataset to study wrinkle ridges south of Eistla Regio. We found that they are ~100 m tall and ~10 km wide and similar in size to those on other planets, and our models support that they formed above shallow thrust faults. We think they formed in response to compression created by mantle downwelling around Eistla Regio.



Above: Examples of wrinkle ridges on Venus, Mars, the Moon, and Mercury.

Right: Example of topographic profiles across a wrinkle ridge.

