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# Pierwsze Ogólnopolskie Seminarium Marsjańskie

## *Structural and compositional mapping of shear zones in northern Valles Marineris*

**Dr Joanna Gurgurewicz CBK PAN**

[POSTER]

We report the existence of NE-SW oriented dextral brittle-plastic shear zones exposed in the deepest parts of Ophir Chasma and Hebes Chasma. Structural and composition maps are presented based on HiRISE and CRISM observations. The structure of the shear zones is interpreted in terms of kinematics. Their age and development is put into the broader geologic context of Valles Marineris. Their orientation and kinematics is consistent with Valles Marineris extension perpendicular to the main chasmata. Shear zone composition and geometry place constraints on the deformation depth and the erosional processes that make possible their current exposure at the surface.