

Refereed Journal Articles

Rodriguez, J.A.P., Gulick, V., Baker, V., **Platz, T.**, Fairén, A.G., Miyamoto, H., Kargel, J. Evidence for Middle Amazonian catastrophic flooding and glaciation on Mars. *Geology* (submitted).

Rodriguez, J.A.P., Tanaka, K.L., **Platz, T.**, Fairén, A.G., Gulick, V. Evidence for Late Amazonian zonal shrinkage of the Martian south polar plateau. *Icarus* (submitted).

**Platz, T.**, Fergason, R.L., McGuire, P.C., Keszthelyi, L., Walter, S. (in revision). Eruption styles of satellite vents at Tharsis Tholus (Mars) and implications for the magma plumbing system. In: Platz, T., Massironi, M., Byrne, P.K., Hiesinger, H. (eds): Volcanism and Tectonism Across the Inner Solar System. *Geological Society, London, Special Publications*, 401.

1. Tanaka, K.L., Skinner, J.A., Jr., Dohm, J.M., Irwin, R.P., III, Kolb, E.J., Fortezzo, C.M., **Platz, T.**, Michael, G.G., and Hare, T.M. Geologic Map of Mars. U.S. Geological Survey Scientific Investigations Map SIM, 1:20,000,000 (in press).
2. Chevrel, M.O., **Platz, T.**, Hauber, E., Baratoux, D., Lavallée, Y., and Dingwell, D.B. (2013). Lava flow rheology: a comparison of morphological and petrological methods. *Earth and Planetary Science Letters* 384, 109-120. ([doi: 10.1016/j.epsl.2013.09.022](https://doi.org/10.1016/j.epsl.2013.09.022)).
3. Hauber, E., **Platz, T.**, Reiss, D., Le Deit, L., Kleinhans, M.G., Marra, W.A., de Haas, T., and Carboneau, P. (2013). Asynchronous formation of Hesperian and Amazonian-aged deltas on Mars and implications for climate. *Journal of Geophysical Research – Planets* 118, 1-16 (SP Early Mars III: Geologic and Hydrologic Evolution, Physical and Climate Environments, and the Implications for Life) ([doi: 10.1002/jgre.20107](https://doi.org/10.1002/jgre.20107)).
4. **Platz, T.**, Michael, G.G., Tanaka, K.L., Skinner, J.A., Jr., and Fortezzo, C.M. (2013). Crater-based dating of geological units on Mars: methods and application for the new global geological map. *Icarus* 225, 806-827. ([doi: 10.1016/j.icarus.2013.04.021](https://doi.org/10.1016/j.icarus.2013.04.021)).
5. Davila, A.F., Fairén, A.G., Stokes, C.R., **Platz, T.**, Rodriguez, A.P., Lacelle, D., Dohm, J., and Pollard, W. (2013). Evidence for Hesperian glaciations along the Martian dichotomy boundary. *Geology* 41, 755-758. ([doi: 10.1130/G34201.1](https://doi.org/10.1130/G34201.1))
6. Skinner, J.A., Jr., Tanaka, K.L., and **Platz, T.** (2012). Widespread loess-like deposit in the Martian northern lowlands identifies Middle Amazonian climate excursion. *Geology* 40, 1127-1130. ([doi:10.1130/G33513.1](https://doi.org/10.1130/G33513.1)).
7. Tirsch, D., Craddock, R.A., **Platz, T.**, Maturilli, A., Helbert, J., and Jaumann, R. (2012). Spectral and petrologic analyses of basaltic sands in Ka'u Desert (Hawaii) – Implications for the dark dunes on Mars. *Earth Surface Processes and Landforms* 37, 434-448. ([doi:10.1002/esp.2266](https://doi.org/10.1002/esp.2266)).
8. Michael, G.G., **Platz, T.**, Kneissl, T., and Schmedemann, N. (2012). Planetary surface dating from crater size-frequency distribution measurements: a quantitative test of spatial randomness. *Icarus* 218, 169-177. ([doi:10.1016/j.icarus.2011.11.033](https://doi.org/10.1016/j.icarus.2011.11.033)).
9. **Platz, T.**, Cronin, S.J., Procter, J.N., Neall, V.E., and Foley, S.F. (2012). Non-explosive, dome-forming eruptions at Mt. Taranaki, New Zealand. *Geomorphology* (Special Issue: Volcano Geomorphology: landforms, processes and hazards) 136, 15-30. ([doi:10.1016/j.geomorph.2011.06.016](https://doi.org/10.1016/j.geomorph.2011.06.016)).
10. **Platz, T.** and Michael, G.G. (2011). Eruption history of the Elysium Volcanic Province, Mars. *Earth and Planetary Science Letters* 312, 140-151. ([doi:10.1016/j.epsl.2011.10.001](https://doi.org/10.1016/j.epsl.2011.10.001)).

11. Hauber, E., Brož, P., Jagert, F., Jodłowski, P., and **Platz, T.** (2011). Very recent and wide-spread basaltic volcanism on Mars. *Geophysical Research Letters* 38, L10201. ([doi:10.1029/2011GL047310](https://doi.org/10.1029/2011GL047310)).
12. Musiol, S., Cailleau, B., **Platz, T.**, Kneissl, T., Dumke, A., and Neukum, G. (2011). Outflow activity near Hadriaca Patera, Mars - Fluid-tectonic interaction investigated with HRSC stereo data and finite-element modelling. *Journal of Geophysical Research* 116, E08001. ([doi:10.1029/2010JE003791](https://doi.org/10.1029/2010JE003791)).
13. **Platz, T.**, Münn, S., Walter, T.R., McGuire, P.C., Dumke, A., and Neukum, G. (2011). Vertical and lateral collapse of Tharsis Tholus, Mars. *Earth and Planetary Science Letters* 305, 445-455. ([doi:10.1016/j.epsl.2011.03.012](https://doi.org/10.1016/j.epsl.2011.03.012)).
14. Pondrelli, M., Rossi, A.P., **Platz, T.**, Ivanov, A., Marinangeli, L., and Balivaa, A. (2011). Geological, geomorphological, facies and allostratigraphic maps of the Eberswalde fan delta. *Planetary and Space Science (Special Volume - Geological Mapping of Mars)* 59, 1166-1178. ([doi:10.1016/j.pss.2010.10.009](https://doi.org/10.1016/j.pss.2010.10.009)).
15. **Platz, T.**, Michael, G.G., and Neukum, G. (2010). Confident thickness estimates for planetary surface deposits from concealed crater populations. *Earth and Planetary Science Letters* 293, 388-395. ([doi:10.1016/j.epsl.2010.03.012](https://doi.org/10.1016/j.epsl.2010.03.012)).
16. Procter, J.N., Cronin, S.J., **Platz, T.**, Patra, A., Dalbey, K., Sheridan, M., and Neall, V. (2010). Mapping block-and-ash flow hazards based on Titan 2D simulations: a case study from Mt. Taranaki, NZ. *Natural Hazards* 53, 483-501. ([doi:10.1007/s11069-009-9440-x](https://doi.org/10.1007/s11069-009-9440-x)).
17. Turner, M.B., Cronin, S.J., Bebbington, M.S., and **Platz, T.** (2008). Developing a probabilistic eruption forecast for dormant volcanoes; a case study from Mt Taranaki, New Zealand. *Bulletin of Volcanology* 70, 507-515. ([doi:10.1007/s00445-007-0151-4](https://doi.org/10.1007/s00445-007-0151-4)).
18. **Platz, T.**, Cronin, S.J., Cashman, K.V., Stewart, R.B., and Smith, I.E.M. (2007). Transition from effusive to explosive phases in andesite eruptions - a case-study from the AD1655 eruption of Mt. Taranaki, New Zealand. *Journal of Volcanology and Geothermal Research* 161, 15-34. ([doi:10.1016/j.jvolgeores.2006.11.005](https://doi.org/10.1016/j.jvolgeores.2006.11.005)).
19. **Platz, T.**, Cronin, S.J., Smith, I.E.M., Turner, M.B., and Stewart, R.B. (2007). Improving the reliability of microprobe-based analyses of andesitic glasses for tephra correlation. *The Holocene* 17, 573-583. ([doi:10.1177/0959683607078982](https://doi.org/10.1177/0959683607078982)).
20. Lube, G., Cronin, S.J., **Platz, T.**, Freundt, A., Procter, J., Henderson, C., and Sheridan, M.F. (2007). Flow and deposition of pyroclastic granular flows: A type example from the 1975 Ngauruhoe eruption, New Zealand. *Journal of Volcanology and Geothermal Research* 161, 165-186. ([doi:10.1016/j.jvolgeores.2006.12.003](https://doi.org/10.1016/j.jvolgeores.2006.12.003)).
21. **Platz, T.**, Foley, S.F., and André, L. (2004). Low-pressure fractionation of the Nyiragongo volcanic rocks, Virunga Province, D.R. Congo. *Journal of Volcanology and Geothermal Research* 136, 269-295. ([doi:10.1016/j.volgeores.2004.05.020](https://doi.org/10.1016/j.volgeores.2004.05.020)).

### Book chapter

Rodriguez, J.A.P. and **Platz, T.** (2013). Types and formation mechanisms of south polar troughs, Mars. In: Fairén, A.G. (ed.). Mars: Evolution, Geology and Exploration. Nova Science Publishers, Inc. ([ISBN: 978-1-62618-102-1](https://doi.org/10.13140/2.1.3605.0000.978-1-62618-102-1))

Extended Conference Abstracts

1. **Platz, T.**, Jodlowski, P., Fawdon, P., Michael, G.G., Tanaka, K.L. (2014). Amazonian volcanic activity at the Syrtis Major volcanic province, Mars. 45th Lunar and Planetary Science Conference, (Lunar and Planetary Science XLV), held March 17-21, 2014 in The Woodlands, Texas id. XXXX.
2. Fortezzo, C.M., Tanaka, K.L., **Platz, T.**, Rodriguez, J.A.P., Kumar, P.S. (2014). Geologic mapping of central Valles Marineris, Mars. 45th Lunar and Planetary Science Conference, (Lunar and Planetary Science XLV), held March 17-21, 2014 in The Woodlands, Texas id. XXXX.
3. Rodriguez, J.A.P., Gulick, V., Baker, V., **Platz, T.**, Fairén, A.G. (2014). Evidence for multiple stages of extensive low outflow channel floor resurfacing in southern circum-Chryse, Mars. 45th Lunar and Planetary Science Conference, (Lunar and Planetary Science XLV), held March 17-21, 2014 in The Woodlands, Texas id. XXXX.
4. Jaumann, R., Neukum, G., Tirsch, D., Hauber, E., Hoffmann, H., Roatsch; T., Gwinner, K., Scholten, F., Ansan, V., Baratoux, D., Di Achille, G., Duxbury, T., Erkeling, G., Foing, B., Fueten, F., van Gasselt, S., Gupta, S., Head, J.W., Hiesinger, H., Ip, W.-H., Keller, H.-U., Kleinhans, M., Kneissl, T., Le Deit, L., Mangold, N., McCord, T.B., Micheal, G., Muller, J.P., Murray, J., Pacifici, A., **Platz, T.**, Pinet, P., Pondrelli, M., Raack, J., Reiss, D., Rossi, A.P., Spohn, T., Sowe, M., Stephan, K., Wendt, L., Williams, D.A. and The HRSC Science Team (2014). The Martian geomorphology as mapped by the Mars Express High Resolution Stereo Camera (HRSC): Implications for geological processes and climate conditions. 45th Lunar and Planetary Science Conference, (Lunar and Planetary Science XLV), held March 17-21, 2014 in The Woodlands, Texas id. XXXX.
5. Hauber, E., **Platz, T.**, Reiss, D., Le Deit, L., Kleinhans, M.G., Carboneau, P., de Haas, T., and Marra, W.A. (2013). Old or not so old: That is the question for deltas and fans in Xanthe Terra, Mars. 44rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIV), held March 18-22, 2013 in The Woodlands, Texas id. 2513.
6. McGuire, P.C., Arvidson, R.E., Bishop, J.L., Brown, A.J., Cull, S., Green, R.O., Gross, C., Hash, C.D., Hauber, E., Humm, D.C., Jaumann, R., Le Deit, L., Malaret, E.R., Martin, T.Z., Marzo, G.A., Morgan, M.F., Murchie, S.L., Mustard, J.F., Neukum, G., Parente, M., **Platz, T.**, Roush, T.L., Seelos, F.P., Seelos, K.D., Smith, M.D., Sowe, M., Tirsch, D., Walter, S., Wendt, L., Wiseman, S.M., and Wolff, M.J. (2013). Mapping minerals on Mars with CRISM: Atmospheric and photometric correction for MRDR map tiles, version 2, and comparison to OMEGA. 44rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIV), held March 18-22, 2013 in The Woodlands, Texas id. 1581.
7. **Platz, T.<sup>P</sup>**, Michael, G.G., Hartmann, O., and Kenkemann, T. (2013). Earth's expected impact crater record on regional and global scales. 44rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIV), held March 18-22, 2013 in The Woodlands, Texas id. 2838.
8. **Platz, T.<sup>P</sup>**, Michael, G., Tanaka, K.L., Skinner, J.A., Jr., and Fortezzo, C.M. (2013). Crater dating of geological units on Mars: Methods and application for the new global geological map. 44rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIV), held March 18-22, 2013 in The Woodlands, Texas id. 2340.
9. Jodlowski, P., **Platz, T.<sup>P</sup>**, and Michael, G.G. (2013). Eruption history of the Syrtis Major Volcanic Province, Mars. 44rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIV), held March 18-22, 2013 in The Woodlands, Texas id. 2322.
10. Voelker, M., **Platz, T.**, Tanaka, K.L., Fortezzo, C., Fergason, R., and Hare, T.M. (2013). Hyperconcentrated flow deposits and valley formation of Havel Vallis, Xanthe Terra, Mars. 44rd

- Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIV), held March 18-22, 2013 in The Woodlands, Texas id. 2886.
11. Hauber, E., **Platz, T.**, Kleinhans, M., Le Deit, L., Carboneau, P., de Haas, T., Marra, W., and Reiss, D. (2012). Old or not so old: That ist the question for deltas and fans in Xanthe Terra, Mars. Third Conference on Early Mars: Geologic, Hydrologic, and Climatic Evolution and the Implications for Life, Nevada, USA, #7078.
  12. Tanaka, K.L., **Platz, T.**, Michael, G., Robins, S., Fortezzo, C.M., Skinner, Jr., J.A., Dohm, J.M., Irwin, III, R.P., Kolb, E.J., and Hare, T.M. (2012). Early Mars revisited by new global geologic mapping and crater counting. Third Conference on Early Mars: Geologic, Hydrologic, and Climatic Evolution and the Implications for Life, Nevada, USA, #7033.
  13. **Platz, T.**, Michael, G.G., Skinner, J.A., Tanaka, K.L., Kneissl, T., and Fortezzo, C.M. (2012). Absolute age determinations for regional geologic units: a case study of the Middle Noachian unit in the Arabia-Sabaea-Noachis Terra region, Mars. 43rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIII), held March 19-23, 2012 in The Woodlands, Texas id. 2686.
  14. Lehmann, T.R., **Platz, T.**, and Michael, G.G. (2012). Ages of lava flows in the Hesperia Volcanic Region, Mars. 43rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIII), held March 19-23, 2012 in The Woodlands, Texas id. 2526.
  15. Jodlowski, P., **Platz, T.**, and Michael, G.G. (2012). Preliminary eruption history of the Syrtis Major Volcanic Province, Mars. 43rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIII), held March 19-23, 2012 in The Woodlands, Texas id. 2494.
  16. Tanaka, K.L., Dohm, J.M., Fortezzo, C.M., Irwin, III, R.P., Kolb, E.J., Skinner, Jr., J.A., Hare, T.M., **Platz, T.**, Michael, G., and Robbins, S. (2012). The geology of Mars: What the new global map show. 43rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIII), held March 19-23, 2012 in The Woodlands, Texas id. 2702.
  17. Tanaka, K.L., Rodriguez, J.A.P., Fortezzo, C.M., **Platz, T.**, Michael, G., and Robbins, S. (2012). Geologic history of Valles Marineris, Mars, revisited. 43rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIII), held March 19-23, 2012 in The Woodlands, Texas id. 2821.
  18. Michael, G.G., **Platz, T.**, Kneissl, T., and Schmedemann, N. (2012). Planetary surface dating from crater size-frequency distribution measurements: spatial randomness and clustering. 43rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIII), held March 19-23, 2012 in The Woodlands, Texas id. 2486.
  19. Rodriguez, J.A.P., Tanaka, K.L., and **Platz, T.** (2012). Types and formation mechanisms of south polar troughs, Mars. 43rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIII), held March 19-23, 2012 in The Woodlands, Texas id. 2613.
  20. Voelker, M., **Platz, T.**, Tanaka, K.L., Fortezzo, C.M., Fergason, R., and Hare, T.M. (2012). Geological mapping of Havel Vallis, Xanthe Terra, Mars: stratigraphy and reconstruction of valley formation. 43rd Lunar and Planetary Science Conference, (Lunar and Planetary Science XLIII), held March 19-23, 2012 in The Woodlands, Texas id. 2738.
  21. **Platz, T.** and Michael, G.G. (2011). Eruption history of the Elysium Volcanic Centre, Mars. 42st Lunar and Planetary Science Conference, (Lunar and Planetary Science XLII), held March 7-11, 2011 in The Woodlands, Texas id. 2687.
  22. **Platz, T.**, Hauber, E., Chevrel, O., Le Deit, L., Trauthan, F., Preusker, F., Jauman, R., and Neukum, G. (2011). Preliminary results on lava morphologies and vent structures: an example from the

- Western Volcanic Province, Iceland. 42st Lunar and Planetary Science Conference, (Lunar and Planetary Science XLII), held March 7-11, 2011 in The Woodlands, Texas id. 2108.
23. Musiol, S., Williams, D.A., van Gasselt, S., **Platz, T.**, Dumke, A., and Neukum, G. (2011). Investigation of a landslide mechanism for the formation of the Olympus Mons scarp and aureole lobes. 42st Lunar and Planetary Science Conference, (Lunar and Planetary Science XLII), held March 7-11, 2011 in The Woodlands, Texas id. 1932.
24. Tanaka, K.L., Fortezzo, C.M., Dohm, J.M., Irwin, III, R.P., Kolb, E.J., Skinner, Jr., J.A., Hare, T.M., **Platz, T.**, and Robbins, S. (2011). Completing the new global geologic map of Mars. 42st Lunar and Planetary Science Conference, (Lunar and Planetary Science XLII), held March 7-11, 2011 in The Woodlands, Texas id. 2265.
25. Hauber, E., **Platz, T.**, Le Deit, L., Chevrel, O., Hoffmann, B., Kuhlmann, L., Trauthan, F., Preusker, F., and Jaumann, R. (2011). Mapping of postglacial Icelandic lava flows as analogues for Mars. 42st Lunar and Planetary Science Conference, (Lunar and Planetary Science XLII), held March 7-11, 2011 in The Woodlands, Texas id. 1749.
26. **Platz, T.**<sup>P</sup>, Kneissl, T., Hauber, E., Le Deit, L., Michael, G.G., and Neukum, G. (2010). Total Volume Estimates of Volcanic Material and Outgassing in the Elysium Volcanic Region. 41st Lunar and Planetary Science Conference, (Lunar and Planetary Science XLI), held March 1-5, 2010 in The Woodlands, Texas id. 2476.
27. **Platz, T.**<sup>T</sup>, Michael, G.G., and Neukum, G. (2010). Confident Thickness Estimates for Planetary Surface Deposits from Concealed Crater Populations. 41st Lunar and Planetary Science Conference, (Lunar and Planetary Science XLI), held March 1-5, 2010 in The Woodlands, Texas id. 2348.
28. **Platz, T.**<sup>T</sup>, McGuire, P.C., Münn, S., Cailleau, B., Dumke, A., Neukum, G., and Procter, J.N. (2009). Growth and Destruction Cycles and Eruption Styles at Tharsis Tholus, Mars. 40th Lunar and Planetary Science Conference, (Lunar and Planetary Science XL), held March 23-27, 2009 in The Woodlands, Texas id.1522.

### Conference Abstracts

1. Balme et al. (2014). Mapping the northern plains of Mars: origins, evolution and response to climate change. EGU 2014.
2. Jaumann et al. (2014). The Martian geomorphology as mapped by the Mars Express High Resolution Stereo Camera (HRSC): Implications for Geological Processes and Climate Conditions. EGU 2014.
3. Balme, Matt et al. (2014). Mapping the northern plains of Mars: origins, evolution and response to climate change – a new ISSI (International Space Science Institute) international team project. 4th European Conference on Permafrost.
4. Hauber, E. et al. (2014). Latitude-dependence of possible periglacial landforms in the northern lowlands of Mars: The case of Acidalia Planitia. 4th European Conference on Permafrost.
5. Jaumann et al. (2013). The Martian geomorphology as mapped by the Mars Express High Resolution Stereo Camera (HRSC): Implications for Geological Processes and Climate Conditions. American Geophysical Union, Fall Meeting 2013,
6. **Platz, T.**, Fergason, R.L., McGuire, P.C. and Walter, S. (2013). Satellite cones and vents at Tharsis Tholus, Mars. European Planetary Science Congress 2013, London, EPSC2013-1055.

7. **Platz, T.**<sup>P</sup>, Jodlowski, P., and Michael, G. (2013). Eruption frequency record of the Syrtis Major Volcanic Province, Mars. EGU General Assembly 2013, Geophysical Research Abstracts, Vol. 15, EGU2013-14211.
8. Manfredi, L., **Platz, T.**, Clarke, A.B., and Williams, D.A. (2012). Volcanic history of the Tempe Volcanic Province. American Geophysical Union, Fall meeting 2012, V33B-2873.
9. Tirsch, D., Craddock, R.A., **Platz, T.**, Maturilli, A., Helbert, J., and Jaumann, R. (2012). An analogy study of basaltic dune sands on Mars and Earth. 3rd Conference on Terrestrial Mars Analogues, Marrakesh, October 2012.
10. Chevrel, M.O., **Platz, T.**, Hauber, E., Baratoux, D., and Dingwell, D.B. (2012). Rheology of Icelandic lava flows as analogues for Mars: comparison between morphometric and experimental determinations. EGU General Assembly 2012, Geophysical Research Abstracts, Vol. 14, EGU2012-8876-1.
11. Chevrel, M.O., **Platz, T.**, Hauber, E., Le Deit, L., and Dingwell, D.B. (2011). Rheology of Icelandic lava flows as analogs for Mars: comparison between morphometry and experimental determinations. American Geophysical Union, Fall meeting 2011, P42C-07.
12. Hauber, E., Arnold, L., and **Platz, T.** (2011). Rates of recent volcanism in the Tharsis Region, Mars. American Geophysical Union, Fall meeting 2011, P21B-1664.
13. Tirsch, D., Craddock, R.A., **Platz, T.**, and Jaumann, R. (2011). An analogy study of basaltic dune sands on Mars and Hawaii. Minerva Gentner Symposium on Aeolian Processes, 23.-28. October 2011, Eilat, Israel.
14. Tirsch, D., Craddock, R.A., **Platz, T.**, Maturilli, A., Helbert, J., and Jaumann, R. (2011). Spectral and Petrologic Analysis of Basaltic Dune Sand from Hawaii: Implications for Martian Dunes. EPSC-DPS Joint Meeting 2011, EPSC-DPS2011- 835-1.
15. **Platz, T.**<sup>T</sup>, Michael, G.G., and Kenkmann, T. (2011). Expected impact crater population on a uniform, widespread surface deposit – a case study from the Siberian flood basalts. EPSC-DPS Joint Meeting 2011, EPSC-DPS2011-748.
16. Tanaka, K.L., **Platz, T.**<sup>P</sup>, Fortezzo, C., and Rodriguez, J.A.P. (2011). Plateau geology south of Valles Marineris, Mars: Implications for canyon formational history. EPSC-DPS Joint Meeting 2011, EPSC-DPS2011-269.
17. Dohm, J.M., **Platz, T.**<sup>P</sup>, and Tanaka, K.L. (2011). Pilot investigation of reported volcanic flow sequences in the Syria-Sinai-Solis province. EPSC-DPS Joint Meeting 2011, EPSC-DPS2011-1787.
18. Chevrel, M.O., **Platz, T.**, Hauber, E., and Dingwell, D.B. (2011). Rheology of lava flows from Iceland derived from geometrical parameters and experimental techniques. IUGG, Melbourne, abstract #4029.
19. Hauber, E., **Platz, T.**<sup>P</sup>, Le Deit, L., Chevrel, O., Hoffmann, B., Kuhlmann, L., Trauthan, F., Preusker, F., and Jaumann, R. (2011). Mapping of postglacial Icelandic lava flows as analogues for Mars. EGU General Assembly 2011, Geophysical Research Abstracts, Vol. 13, EGU2011-12860-1.
20. **Platz, T.**<sup>P</sup> and Michael, G.G. (2011). Eruption history of the Elysium Volcanic Centre, Mars. EGU General Assembly 2011, Geophysical Research Abstracts, Vol. 13, EGU2011-13166.
21. **Platz, T.**<sup>P</sup>, Hauber, E., Chevrel, M.O., Le Deit, L., Trauthan, F., Preusker, F., Jaumann, R., and Neukum, G. (2011). Preliminary results on lava flow morphology and vent structures: an example from the Western Volcanic Zone, Iceland. EGU General Assembly 2011, Geophysical Research Abstracts, Vol. 13, EGU2011-12975.
22. McGuire, P.C., Arvidson, R.E., Bishop, J.L., Brown, A.J., Cull, S., Green, R.O., Gross, C., Hash, C.D., Hauber, E., Humm, D.C., Jaumann, R., Le Deit, L., Malaret, E.R., Martin, T.Z., Marzo, G.A.,

- Morgan, M.F., Murchie, S.L., Mustard, J.F., Neukum, G., Parente, M., **Platz, T.**, Roush, T.L., Seelos, F.P., Seelos, K.D., Smith, M.D., Sowe, M., Tirsch, D., Walter, S., Wendt, L., Wiseman, S.M., and Wolff, M.J. (2010). Mapping Minerals on Mars with CRISM: Atmospheric, Thermal, and Photometric Correction for MRDR Map Tiles and Comparison to OMEGA. European Planetary Science Congress 2010, Vol. 5, EPSC2010-163.
23. Tirsch, D., Craddock, R.A., **Platz, T.**, Maturilli, A., Spengler, D., Helbert, J., and Jaumann, R. (2010). Mineralogical Analyses of Basaltic Dune Sands from Ka'u Desert (Hawaii) - Comparison with Martian Dark Dunes. European Planetary Science Congress 2010, Vol. 5, EPSC2010-482.
24. **Platz, T.<sup>P</sup>**, Michael, G.G., Jodlowski, P., and Neukum, G. (2010). Construction of an Eruption Record for the Elysium Volcanic Centre, Mars: Preliminary Results. EGU General Assembly 2010, Geophysical Research Abstracts, Vol. 12, EGU2010-11285.
25. **Platz, T.<sup>P</sup>**, Münn, S., and Walter, T.R. (2010). Volcano-tectonics at Tharsis Tholus, Mars: Observation and Experiments. EGU General Assembly 2010, Geophysical Research Abstracts, Vol. 12, EGU2010-10227.
26. **Platz, T.<sup>T</sup>**, McGuire, P.C., Münn, S., Cailleau, B., Dumke, A., Neukum, G., and Procter, J.N. (2009). Cycles of edifice growth and destruction at Tharsis Tholus, Mars. EGU General Assembly 2009, Geophysical Research Abstracts, Vol. 11, EGU2009-9324-1.
27. **Platz, T.<sup>T</sup>**, Cronin, S., Procter, J., and Stewart, B. (2007). Post eruption dome collapses - a potentially unexpected hazard source. IUGG, XXIV General Assembly, Perugia, Italy, Abstract.
28. Lube, G., Freundt, A., Cronin, S.J., **Platz, T.**, Sparks, R.S.J., and Huppert, H.E. (2007). Flow and deposition of pyroclastic granular flows a combined field and experimental study. IUGG, XXIV General Assembly, Italy, Abstract.
29. **Platz, T.<sup>P</sup>**, Cronin, S.J., Cashman, K.V., and Stewart, R.B. (2006). Diversity of clast types and their implications for conduit processes. Eos Trans. AGU, 87(52), Fall Meet. Suppl., Abstract. V23C-0630
30. Cronin, S., **Platz, T.**, Procter, J., and Stewart, B. (2006). Depositional facies and sedimentary variability in the deposits of dome-generated block-and-ash flows. Conferences Abstracts Sedimentology, Japan.
31. Lube, G., Cronin, S.J., **Platz, T.**, Freundt, A., Procter, J., Henderson, C., and Sheridan, M.F. (2006). Flow and deposition of pyroclastic granular flows of the 1975 Ngauruhoe eruption, New Zealand. Conference Abstracts Sedimentology Japan.
32. **Platz, T.<sup>T</sup>**, Cronin, S.J., Stewart, R.B., Smith, I.E.M., and Foley, S.F. (2006). Magma changes during ascent and its impact on eruptive style: a study from Mt. Taranaki andesites, New Zealand. EGU General Assembly 2006, Geophysical Research Abstracts, Vol. 8, 00514.
33. Procter, J.N., **Platz, T.<sup>P</sup>**, and Cronin, S.J. (2006). A remnant summit lava dome and its influence on future eruptive hazards. EGU General Assembly 2006, Geophysical Research Abstracts, Vol. 8, 10211.
34. Lube, G., Cronin, S., Freundt, A., **Platz, T.**, Procter, J., and Sheridan, M. (2006). Flow and deposition of pyroclastic granular flows of the 1975 Ngauruhoe eruption, New Zealand. EGU General Assembly 2006, Geophysical Research Abstracts, Vol. 8, 03628.
35. Procter, J., Cronin, S., Patra, A., Dalbey, K., Sheridan, M., and **Platz, T.** (2006). Utilising TITAN2D to forecast dome collapse flow (BAFs) hazards from Mount Taranaki. Abstracts Volume, Fourth Conference, Cities on Volcanoes IAVCEI, Quito, Ecuador, Instituto Geofisico de la Escuela Politecnica Nacional, Quito, Ecuador. pp. 45.

36. Lube, G., Huppert, H.E., **Platz, T.**, Sparks, R.S.J., Freundt, A., Cronin, S.J., and Procter, J.N. (2005). Transport and sedimentation processes of small-volume pyroclastic flows. EGU General Assembly 2006, Geophysical Research Abstracts, Vol. 7, 01102.
37. **Platz, T.<sup>P</sup>**, Cronin, S.J., Cashman, K.V., and Stewart, R.B. (2005). What does the colour of pumice tell us? Geological Society of New Zealand Miscellaneous Publication, 119A, 68.
38. **Platz, T.<sup>T</sup>**, Cronin, S.J., Stewart, R.B., Smith, I.E.M., and Foley, S.F. (2005). Explosive vs. Effusive – the Jekyll and Hyde nature of Taranaki andesites. Geological Society of New Zealand Miscellaneous Publication, 119A, 69.
39. Procter, J., Cronin, S.J., Patra, A., Dalbey, K., Sheridan, M., and **Platz, T.** (2005). Forecasting hazards from Mount Taranaki using Titan2D. Geological Society of New Zealand Miscellaneous Publication, 119A, 71.
40. Taylor, P., Cronin, S., Smith, I., and **Platz, T.** (2005). New evidence for widespread, late Holocene, explosive volcanism along the Tofua Volcanic Arc and its implications on the Kingdom of Tonga in the future. 22nd STAR Session, SOPAC Miscellaneous Report 603, Abstracts 2005, 67.
41. Cronin, S., Smith, I., Taylor, P., and **Platz, T.** (2004). New evidence for widespread, late Holocene, explosive volcanism along the Tongan arc. Abstract S12b\_o\_05 in proceedings IAVCEI General Assembly, Pucon, Chile.
42. Cronin, S., Stewart, R., Smith, I., Turner, M., **Platz, T.**, Procter, J., Charley, D., and Garae, E. (2004). Physical and petrological characteristics of a summit/flank multi-vent eruption: June 2003 Lopevi Volcano, Vanuatu. Abstract S3a\_pm\_26 in proceedings IAVCEI General Assembly, Pucon, Chile.
43. **Platz, T.<sup>P</sup>**, Cronin, S.J., Smith, I.E.M., Foley, S.F., Neall, V.E., and Stewart, R.B. (2004). Glass chemistry as a tool for tephra correlation: a new statistical approach on <1000 year old tephra deposits on Egmont volcano, Mt. Taranaki, New Zealand. 17th Australian Geological Convention, Hobart, Geological Society of Australia, Abstracts, 73, 284.
44. **Platz, T.<sup>T</sup>**, Cronin, S., Cashman, K.V., and Wright, H. (2004). The AD1655 sub-plinian eruption of Egmont Volcano – insights from the porosity and permeability of proximal ejecta. Geological Society of New Zealand Miscellaneous Publication, 117A, 80.
45. **Platz, T.<sup>P</sup>**, Cronin, S.J., and Cashman, K.V. (2004). Estimates of the volatile concentrations of an explosively erupted magma from Egmont volcano. Geological Society of New Zealand Miscellaneous Publication, 117A, 81.
46. Stewart, R.B., Smith, I.E.M., Turner, M.B., Cronin, S.J., **Platz, T.**, Charley, D., and Garae, E. (2004). Magmatic processes in a young oceanic arc stratovolcano: Lopevi Island, Vanuatu. Geological Society of New Zealand Miscellaneous Publication, 117A, 103-104.
47. **Platz, T.<sup>T</sup>**, Foley, S., and André, L. (2003). Low-pressure fractionation of Nyiragongo volcanic rocks, Virunga Province, DR Congo. Geological Society of New Zealand Miscellaneous Publication, 116A, 119.
48. Cronin, S.J., Stewart, R.B., Neall, V.E., **Platz, T.**, and Gaylord, D. (2003). The AD1040 to present Maero eruptive period of Egmont Volcano, Taranaki, New Zealand. Geological Society of New Zealand Miscellaneous Publication, 116A, 43.
49. Cronin, S.J., **Platz, T.**, Charley, D., and Turner, M.B. (2003). The June 2003 eruption of Lopevi Volcano, Vanuatu. Geological Society of New Zealand Miscellaneous Publication, 116A, 42.
50. Cronin, S., Neall, V., Stewart, R., Petterson, M., **Platz, T.**, and Gaylord, D. (2002). Phreatomagmatism and block-and-ash flow architecture at Egmont (New Zealand) and Savo (Solomon Islands): a comparative approach. In: Program and Abstracts of the International

- Congress of Montagne Pelee 1902-2002, Explosive volcanism in subduction zones. St. Pierre, Martinique, May 12-16, 2002, pp. 36.
51. **Platz, T.**, Foley, S., and André, L. (2002). Nyiragongo volcano, DR Congo - Petrology and Mineral Chemistry. Jahrestagung der Deutschen Mineralogischen Gesellschaft, Hamburg, Beih. z. Eur. J. Mineral, 14, 129.

### Selected Oral Presentations

- Platz, T.** (2013). Advanced analysis of planetary surfaces utilising impact-crater statistics. Planetary Science Institute, Tucson, Arizona (USA), 3 September 2013 (*invited*).
- Platz, T.** (2013). Advanced planetary surface analysis based on crater statistics. NASA Ames, San Francisco (USA), 16 July 2013.
- Platz, T.** (2012). Martian topography and geology through orbital observations. Europlanet Towards Mars! workshop, Tallinn (Estonia), 29-30 August 2012 (*invited*).
- Platz, T.** (2012). Volcanism on Mars and other worlds. Heidelberg Joint Astronomical Colloquium, Heidelberg, 22 May 2012 (*invited*).
- Platz, T.** (2012). Ages and volumes of volcanic provinces on Mars. Workshop on 'Planetary Volcanism and Mantle Dynamics', Observatoire Midi-Pyrénées, Toulouse (France), 29-30 March 2012 (*invited*).
- Platz, T.** et al. (2012). Towards unlocking the volcanic history of Mars. 22 February 2012, 4th HGF Alliance Week, DLR Berlin (Institute of Planetary Research).
- Platz, T.** and Hauber, E. (2010). Recent volcanism on Mars and Icelandic analogues. 2 September 2010, Institute of Earth Sciences, University of Reykjavik, Reykjavik.
- Platz, T.** (2010). Dating of planetary surface units: correct utilisation of crater-size frequency determinations. 26 May 2010, USGS Astrogeology Research Program, Flagstaff, Arizona.
- Platz, T.** (2010). Volcanic Outgassing on Mars - Preliminary Results from Lava Volume Estimates. 9 March 2010, 3rd HGF Alliance Week, DLR Berlin (Institute of Planetary Research).
- Platz, T.** (2009). Absolute ages of the Martian surface: potentials and correct utilization of crater-size frequency determinations. 2 June 2009, 2nd HGF Alliance Week, DLR Berlin (Institute of Planetary Research).

### Workshops/Reports/Popular Science

- Tanaka, K.L., Dohm, J.M., Irwin, R., Kolb, E.J., Skinner, Jr., J.A., Fortezzoe, C., **Platz, T.**, and Robbins, S. (2011). Mars Global Geologic Map: nearing completion. Mars Global Map and Planetary Geologic Mapping (MGM-PGM) workshop, Goddard, Maryland, June 2011.

- Platz, T.** (2011). Marsvulkane – Giganten des Sonnensystems. *Sterne und Weltraum* 5, 24-32.
- Platz, T.** and Neukum, G. (2009). Volume estimates of planetary surface units: approaches and limitations. IRSPS 'Mars mapping workshop', 12-14 October 2009, Il Ciocco, abstract.
- Cronin, S.J., Taylor, P.W., and **Platz, T.** (2001). Dating and volcanic process studies. Annex 4, In: Cronin, S.J., Taylor, P.W. and Malele, F.: Final report on the Savaii volcanic hazards project, Samoa. SPDRP/SOPAC miscellaneous report. SOPAC Technical Report 343. SOPAC, Suva, Fiji pp. 23-34.

#### Unpublished Theses

- Platz, T.** (2007). Understanding aspects of andesitic dome-forming eruptions through the last 1000 yrs of volcanism at Mt. Taranaki, New Zealand. [Ph.D. thesis](#), Massey University, Palmerston North, New Zealand. 264 p.
- Platz, T.** (2002). Nyiragongo volcano, D.R. Congo - mineral chemistry and petrology. Diploma thesis. Ernst-Moritz-Arndt Universität, Greifswald. 79 p.
- Platz, T.** (2001). Mapping and characterisation of the volcaniclastic Maero formation deposits on the northwestern sector of Egmont volcano (Mt. Taranaki), New Zealand. Diploma mapping thesis. Ernst-Moritz-Arndt Universität, Greifswald. 48 p.
- Platz, T.** (2000). Petrogenetische Untersuchungen an pyroklastischen Gesteinen am SE Hang des Großen Beerberg, Thüringer Wald (Petrogenetic studies of pyroclastic rocks, SE flank of Großer Beerberg, Thuringian Forest). Oberseminararbeit (seminar paper). Ernst-Moritz-Arndt Universität, Greifswald. 71 S. (71 p.)