

Marlies Arnhof

Selected Publications

Arnhof M., Rich B., Lökk H., Makaya A., Cowley A., Petrov G.I., Inocente D., and Koop C., 2022. Implementation Of In-Situ Resource Utilization For The Development Of A Moon Village, 51st International Conference on Environmental Systems (ICES), 10-14 July 2022, Saint Paul, MN.

Pilehvar S., **Arnhof M.**, Erichsen A., Valentini L., Kjøniksen A.-L., 2021. Investigation of severe lunar environmental conditions on the physical and mechanical properties of lunar regolith geopolymers. Journal of Materials Research and Technology, Volume 11, 2021, Pages 1506-1516, ISSN 2238-7854, <https://doi.org/10.1016/j.jmrt.2021.01.124>

Heinicke C., **Arnhof M.**, 2021. A review of existing analog habitats and lessons for future lunar and Martian habitats. REACH. 21-22. <https://doi.org/10.1016/j.reach.2021.100038>

Rich B., Lökk H., **Arnhof M.**, Cheibas I., 2021. Advanced Concepts for ISRU-Based Additive Manufacturing of Planetary Habitats. 16th European Conference on Spacecraft Structures, Materials and Environmental Testing (ECSSMET), March 2021, <https://doi.org/10.6084/m9.figshare.14345537.v1>

Arnhof M., Ramasamy R. (Guest Editors), D. Izzo (Editor in Chief), 2020. Acta Futura Issue 12: Interstellar Exploration. https://www.esa.int/gsp/ACT/acta_futura/issue12 . ESA – Advanced Concepts Team.

Arnhof M., Pilehvar S., Kjøniksen A.-L., Cheibas I., 2019. Basalt fibre reinforced geopolymer made from lunar regolith simulant. Proceedings of the 8th European Conference for Aeronautics and Space Sciences, EUCASS, 1-4 July 2019, Madrid, Spain.

Pilehvar S., **Arnhof M.**, Pamies R., Valentini L., Kjøniksen A.-L., 2019. Utilization of urea as an accessible superplasticizer on the moon for lunar geopolymer mixtures. Journal of Cleaner Production, 2019, 119177, ISSN 0959-6526, <https://doi.org/10.1016/j.jclepro.2019.119177>

Petrov G. I., Inocente D., Haney M., Katz N., Koop C., Makaya A., **Arnhof M.**, Lakk H., Cowley A., Haigneré C., Messina P., Sumini V., and Hoffman J. A., 2019. Moon Village Reference Masterplan and Habitat Design. 49th International Conference on Environmental Systems (ICES), 2019.

Inocente D., Koop C., Petrov G.I., Hoffman J.A., Sumini V., Makaya A., **Arnhof M.**, Lakk H., Lamaze B., Cowley A., Binns D., Landgraf M., Messina P., Haigneré C., 2019. Master Planning and Space Architecture for a Moon Village. 70th International Astronautical Congress (IAC), Washington, D.C., 21-25 Oct. 2019.

Arnhof M., Häuplik-Meusburger S., 2018. Interdisciplinary Workshop on Human Habitation Concepts. 69th International Astronautical Congress (IAC), Bremen, Germany, 1-5 October 2018. IAC-18,E1,4,10,x46685.

Heinicke C., Orzechowski L., **Arnhof M.**, 2018. Updated Design Concepts of the Moon and Mars Base Analog (MaMBA). 69th International Astronautical Congress (IAC), Bremen, Germany, 1-5 October 2018. IAC-18-F1.2.3

Arnhof M., 2016. Design of a Human Settlement on Mars Using In-Situ Resources. Paper presented at the 46th International Conference on Environmental Systems (ICES), July 10th-14th, 2016, Vienna. ICES-2016-151. Winner of the 2016 "**Best Student Paper**" Prize, awarded by the Space Architecture Technical Committee (SATC) of the American Institute of Aeronautics & Astronautics (AIAA).

Arnhof M., 2016. Design of a Kit-of-Parts Structure for the Interior Configuration of a Space Habitat. Presentation at the 2nd Vienna Young Scientists Symposium, June 9th-10th, 2016, Vienna. Proceedings: ISBN 978-3-9504017-2-1.

Arnhof M., 2015. IN SITU – Design of a self-sufficient human settlement on Mars. Master's thesis, Vienna University of Technology/Technische Universität Wien, 2015.