

# ***List of publications of Ulrich Leuthaeusser***

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The fracture of a climbing rope: a phenomenological approach. *Journal of SPORTS ENGINEERING AND TECHNOLOGY*. (first published in November 29, 2018); <https://doi.org/10.1177/1754337118813408>.

The physics of a climbing rope under a heavy dynamic load. *Journal of SPORTS ENGINEERING AND TECHNOLOGY*. Volume 231 Issue 2, June 2017 (first published June 16, 2016); <https://doi.org/10.1177/1754337116651184>

Reales Ausfallverhalten eines Geraetebestandes, at-Automatisierungstechnik 47.3 (1999), in cooperation with J. Sellen

Motion Planning Strategies in Incompletely Known Terrain, SPIE Proceedings "Mobile Robots XII, Pittsburgh (1997)

On Navigation Functions for Shortest Path Problems, IASTED Proceedings "Robotics and Manufacturing", Oxford (1993)

Path Planning for Autonomous Robots in Digital Maps, EURNAV 92 Proceedings "Digital Mapping and Navigation", London (1992)

Robot Path Planning based on Variational Methods, SPIE Proceedings "Advances in Intelligent Robot Systems", Boston (1991)

An Efficient Method for 3D Route Planning with Different Strategies and Constraints, AGARD Proceedings 504 "Air Vehicle Mission Control and Management", Amsterdam (1991), in cooperation with F. Raupp

Thermal Desorption of Atoms from Surfaces, Physical Review B36, 4672 (1987) Escape Problem for Particles with Internal Degrees of Freedom out of a Potential, Physical Review B34, 587 (1986)

Correlation Inequality for Surface-Scattering Operators, Physical Review A31, 1948 (1985) Specific Heat of Alpha Phase VD0.71 and VD0.78 , I. Less-Common Met. (Switzerland) 104, 21 (1984), in cooperation with M. Sotzek, H. Siebler and H. Wipf

Kinetic Theory of Gas-Surface Scattering: Energy and Angular Distributions of the Fast Part, Surface Science 145, 48 (1984)

Kinetics of Nitrogen Adsorption on Iron, Surface Science 131, 258 (1983), in cooperation with J. Boenheim, W. Brenig and T. Engel

Kinetic Theory of Desorption: Energy and Angular Distributions, Zeitschrift für Physik B50, 65 (1983)

Kinetic Theory of Adsorption and Desorption, Zeitschrift für Physik B44, 101 (1981)

Quasi-Chemical Approximation for a Lattice Gas: Application to CO on RU, Zeitschrift für Physik B37, 65 (1980)

## **Patents**

Deutsches Patent 39 27 299.0 "Verfahren zur Bewegungsplanung"

Deutsches Patent 42 18 172.0 "Angetriebener Staubsauger", together with Ira Leuthaeusser (Siemens AG)

Europaeisches Patent 98105443.0 " Verfahren zum Abschätzen von Komponenten technischer Einrichtungen", together with Juergen Sellen