LIST OF PUBLICATIONS (since 2002)

(see also http://scholar.google.de)

The most important and representative journal publications in my main research fields:

Lebiedz, D., Siehr, J. Unger, J. A Variational principle for computing slow invariant manifolds in dissipative dynamical systems. **SIAM J. Sci. Comput.** 33, 703 (2011)

Engelhart, M., Lebiedz, D., Sager, S. Optimal control of selected chemotherapy ODE models: A view on the potential of optimal schedules and choice of objective function. **Math. Biosci.** 229, 123 (2011)

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Lebiedz, D., Poppe, J. Sensitivities in complex-time flows: Phase transitions, Hamiltonian structure and differential geometry. **Chaos** 35, 033114 (2025)

Kainz, N., Lebiedz, D. Local geometry of equilibria and a Poincaré-Bendixson-type theorem for holomorphic flows. **Topol. Proc.** 65, 99 (2025)

Diploma Theses, PhD Thesis, Habilitation Thesis

Isolierung der Promotorregion und der Splice-Varianten des monozytären cysteinreichen Scavengerrezeptors CD163 (RM3/1), **Diploma Thesis Biochemistry,** University of Münster, 1998

Wasserstoffinduzierte Effekte im System $Nd_2(Fe/Co)_{14}B$, Eine SIMS- und XPS-Studie, **PhD Thesis Physical Chemistry**, University of Münster, 2001

Numerische Simulation und Optimale Steuerung parabolischer Differentialgleichungen in Chemotaxis-Modellen, **Diploma Thesis Applied Mathematics**, University of Münster, 2002

Optimal Control, Model- and Complexity-Reduction of Self-Organized Chemical and Biochemical Systems: A Scientific Computing Approach, **Habilitation Thesis**, University of Heidelberg, 2006

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1. Kestenbaum, H., Lange de Oliveira, A., Schmidt, W., Schüth, F., Ehrfeld, W., Gebauer, K., Löwe, H., Richter, T., Lebiedz, D., Untiedt, I., Züchner, H. Silver catalysed oxidation of ethylene to ethylene oxide in a microreaction system. **Ind. Eng. Chem. Res.** 41, 710 (2002)
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