

Professor Siegfried Carl

## Publications

### Monographs

- Siegfried Carl and Vy Khoi Le, Multi-Valued Variational Inequalities and Inclusions, Springer Monographs in Mathematics, Springer, New York, 2021.
- Siegfried Carl and Seppo Heikkilä, Fixed Point Theory in Ordered Sets and Applications, Springer, New York, 2011.
- Siegfried Carl, Vy Khoi Le, and Dumitru Motreanu, Nonsmooth Variational Problems and Their Inequalities, Springer Monographs in Mathematics, Springer, New York, 2007.
- S. Carl and S. Heikkilä, Nonlinear Differential Equations In Ordered Spaces, Chapman & Hall/CRC, London, 2000.

### Research Articles

167. Carl, S., Le, V.K. and Winkert, P., Multi-valued variational inequalities for variable exponent double phase problems: comparison and extremality results. *J. Elliptic Parabol Equ.* (2025). <https://doi.org/10.1007/s41808-025-00319-6>
166. Carl, S., Quasilinear noncoercive parabolic bilateral variational inequalities in  $L^p(0, \tau; D^{1,p}(\mathbb{R}^N))$ , *Rend. Istit. Mat. Univ. Trieste* 57 (2025), Art. No. 8, 24 pages. doi: 10.13137/2464-8728/37096
165. Carl, S., Quasilinear noncoercive bilateral hemivariational inequalities in  $D^{1,p}(\mathbb{R}^N)$ : Existence and compactness results, *Discrete and Continuous Dynamical Systems - Series S* 18 (2025), no. 6, pp. 1457–1473. doi:10.3934/dcdss.2024028
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158. Borer, F., Carl, S., and Winkert, P., Elliptic  $p$ -Laplacian systems with nonlinear boundary condition, *J. Math. Anal. Appl.* 538 (2024), no. 2, Paper No. 128421.
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156. Carl, S., Extremal solutions of quasilinear elliptic variational inequalities in exterior domains, *Pure Appl. Funct. Anal.* 8 (2023), no 1, 133–155.
155. Carl, S., and Vy K. Le, On systems of parabolic variational inequalities with multivalued terms, *Monatsh. Math.* 194 (2021), no. 2, 227–260.
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