

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

156. Carl, S., Extremal solutions of quasilinear elliptic variational inequalities in exterior domains, *Pure Appl. Funct. Anal.* to appear (in: Special Issue on Analysis and PDE in memory of Professor Louis Nirenberg)
155. Carl, S., and Vy K. Le, On systems of parabolic variational inequalities with multivalued terms, *Monatsh. Math.* 194 (2021), no. 2, 227–260.
154. Carl, S., N-Laplacian elliptic equations in exterior domains via Kelvin transform, *Pure Appl. Funct. Anal.* 5 (2020), no. 4, 869–890.
153. Carl, S., and Vy K. Le, Extremal solutions of multi-valued variational inequalities in plane exterior domains, *J. Differential Equations*, 267 (2019), no. 8, 4863–4889.
152. Carl, S., Costa, David G., Fotouhi, M., and Tehrani, H., Invariance of critical points under Kelvin transform and multiple solutions in exterior domains of \mathbb{R}^2 , *Calc. Var. Partial Differential Equations* 58 (2019), no. 2, Art. 65, 24 pp.
151. Carl, S., Costa, David G., and Tehrani, H., Extremal solutions of logistic-type equations in exterior domain in \mathbb{R}^2 , *Nonlinear Anal.* 176 (2018), 272-287.
150. Carl, S., Tietz, Ch., Quasilinear elliptic equations with measures and multi-valued lower order terms, *Discrete Contin. Dyn. Syst. Ser. S* 11 (2018), no. 2, 193-212.

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147. Carl, S., Costa, David G., and Tehrani, H., $\mathcal{D}^{1,2}(\mathbb{R}^N)$ versus $C(\mathbb{R}^N)$ local minimizer on manifolds and multiple solutions for zero-mass equations in \mathbb{R}^N , *Advances in Calculus of Variations* 11 (2018), no. 3, 257-272.
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145. Carl, S., and Motreanu, D., Extremal solutions for nonvariational quasilinear elliptic systems via expanding trapping regions, *Monatsh Math* 182 (2017), no. 4, 801–821.
144. Carl, S., Costa, David G., and Tehrani, H., $\mathcal{D}^{1,2}(\mathbb{R}^N)$ versus $C(\mathbb{R}^N)$ local minimizer and a Hopf-type maximum principle, *J. Differential Equations* 261 (2016), 2006–2025.
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142. Carl, S., Barrier solutions of elliptic variational inequalities. *Nonlinear Anal. Real World Appl.* 26 (2015), 75-92.
141. Carl, S., and Motreanu, D., Multiple solutions for elliptic systems via trapping regions and related nonsmooth potentials. *Appl. Anal.* 94 (2015), no. 8, 1594-1613.
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139. Carl, S., and Vy K. Le, Elliptic inequalities with multi-valued operators: existence, comparison and related variational-hemivariational type inequalities. *Nonlinear Anal.* 121 (2015), 130-152.
138. Carl, S., and Vy K. Le, Multi-Valued Parabolic Variational Inequalities and Related Variational-Hemivariational Inequalities, *Advanced Nonlinear Studies* 14 (2014), 603-631.
137. Carl, S., and Vy K. Le, Quasilinear Parabolic Variational Inequalities with Multi-Valued Lower Order Terms, *Z. Angew. Math. Phys.* 65 (2014), no. 5, 845–864.
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