

# List of Publications - Lucian BEZNEA

## Ph. D. Thesis:

- *Teoria potențialului - clasificări în conuri de potențiale* [*Potential Theory - Classifications in Cones of Potentials*], Universitatea din București, 1990, 105 p. Ph. D. supervisor: Nicu Boboc.

## Monographs:

- L. Beznea and N. Boboc: *Potential Theory and Right Processes*. (Mathematics and Its Applications, vol. **572**), Kluwer Academic Publishers/Springer 2004, 376 p.

## Edited Volumes:

- D. Bakry, L. Beznea, and M. Röckner (guest editors): *Revue Roumaine Math. Pures Appl.* **59**, No. 1, 2014 (Special issue dedicated to Professor Nicu Boboc on the occasion of his 80th birthday).
- L. Beznea, A. Gheondea, P. Hästö, C. Joița, and M. Vuorinen (editors): *Selected papers from the International Conference on Complex Analysis and Related Topics, and the 13th Romanian-Finnish Seminar (26-30 June 2012)*, *Math. Reports* **15** (65), No. 4, 2013.
- L. Beznea, V. Brinzanescu, M. Iosifescu, G. Marinoschi, R. Purice, and D. Timotin (editors): *Advances in Mathematics – Invited Contributions to the Seventh Congress of Romanian Mathematicians, Brașov, 2011*. The Publishing House of the Romanian Academy, Bucharest, 2013.
- L. Beznea, V. Brinzanescu, M. Iosifescu, G. Marinoschi, and R. Purice (guest editors): *Proceedings of the Seventh Congress of Romanian Mathematicians*. (*Bulletin of the Transilvania University of Brașov* **5** (54) 2012, special issue) published by Transilvania University Press, Brașov and Publishing House of the Romanian Academy.
- L. Beznea, A. Gheondea, P. Hästö, and M. Vuorinen (guest editors): *Complex Anal. Oper. Theory* **5** (2011), no. 3. Special Issue: Trends in Modern Complex Analysis.
- L. Beznea, V. Brinzanescu, M. Iosifescu, S. Marcus, and D. Timotin (editors): *Proceedings of The Sixth Congress of Romanian Mathematicians, Bucharest, 2007. Volume 2, Plenary Reports*. Editura Academiei Romane, Bucharest, 2009.
- L. Beznea, V. Brinzanescu, C. S. Calude, H. Ene, M. Iosifescu, S. Marcus, R. Purice, and D. Timotin (editors): *Proceedings of The Sixth Congress of Romanian Mathematicians, Bucharest, 2007. Volume 1, Scientific Contributions*. Editura Academiei Romane, Bucharest, 2009.
- D. Bakry, L. Beznea, N. Boboc, and M. Röckner (editors): *Potential Theory and Stochastics in Albac. Aurel Cornea Memorial Volume*. Theta Foundation Bucharest, 2009 (distributed by Amer. Math. Soc.).
- D. Bakry, L. Beznea, Gh. Bucur, and M. Röckner (editors): *Current Trends in Potential Theory - Conference Proceedings, Bucharest, September 2002 and 2003*. Theta Foundation Bucharest, 2005 (distributed by Amer. Math. Soc.).
- L. Beznea and Gh. Bucur (editors): *Fifty Years of Modern Potential Theory in Bucharest – To the Anniversary of Nicu Boboc*. Editura Universității din București, 2004.

## Scientific Publications:

- L. Beznea and I. Cîmpean: Quasimartingales associated to Markov processes. *Trans. Amer. Math. Soc.* (2017), to appear.
- L. Beznea and S. Vlădoiu: Markov processes on the Lipschitz boundary for the Neumann and Robin problems. *J. Math. Anal. Appl.* **455** (2017), 292–311.
- L. Beznea, M. Deaconu, and O. Lupaşcu: Stochastic equation of fragmentation and branching processes related to avalanches. *J. of Statistical Physics* **162** (2016), 824–841.
- L. Beznea and O. Lupaşcu: Measure-valued discrete branching Markov processes. *Trans. Amer. Math. Soc.* **368** (2016), 5153–5176.
- L. Beznea, M.N. Pascu, and N.R. Pascu: An equivalence between the Dirichlet and the Neumann problem for the Laplace operator. *Potential Analysis* **44** (2016), 655–672.
- V. Barbu and L. Beznea: Measure-valued branching processes associated with Neumann nonlinear semiflows. *J. Math. Anal. Appl.* **441** (2016), 167–182.
- L. Beznea, M. Deaconu, and O. Lupaşcu: Branching processes for the fragmentation equation. *Stochastic Processes and their Applications* **125** (2015), 1861–1885.
- L. Beznea and M. Röckner: On the existence of the dual right Markov process and applications. *Potential Analysis* **42** (2015), 617–627.
- L. Beznea and I. Cîmpean: On Bochner-Kolmogorov Theorem. In: *Séminaire de Probabilités XLVI* (Lecture Notes in Mathematics, Vol. 2123), Springer 2014, pp. 61–70.
- L. Beznea and A.-G. Oprina: Bounded and  $L^p$ -weak solutions for nonlinear equations of measure-valued branching processes. *Nonlinear Analysis: Theory, Methods & Applications* **107** (2014), 34–46.
- L. Beznea, O. Lupaşcu, and A.-G. Oprina: A unifying construction for measure-valued continuous and discrete branching processes. In *Complex Analysis and Potential Theory, CRM Proceedings and Lecture Notes*, vol. **55**, Amer. Math. Soc., Providence, RI, 2012, pp. 47–59.
- L. Beznea: The stochastic solution of the Dirichlet problem and controlled convergence. *Lecture Notes of Seminario Interdisciplinare di Matematica* **10** (2011), 115–136.
- L. Beznea and M. Röckner: From resolvents to càdlàg processes through compact excessive functions and applications to singular SDE on Hilbert spaces. *Bull. Sci. Math.* **135** (2011), 844–870.
- L. Beznea, A. Cornea, and M. Röckner: Potential theory of infinite dimensional Lévy processes. *J. of Functional Analysis* **261** (2011), 2845–2876.
- L. Beznea and G. Trutnau: On the quasi-regularity of non-sectorial Dirichlet forms by processes having the same polar sets. *J. Math. Anal. Appl.* **384** (2011), 33–48.
- L. Beznea and A.-G. Oprina: Nonlinear PDEs and measure-valued branching type processes. *J. Math. Anal. Appl.* **384** (2011), 16–32.
- L. Beznea: Potential theoretical methods in the construction of measure-valued Markov branching processes. *J. European Math. Soc.* **13** (2011), 685–707.
- L. Beznea and M. Röckner: Applications of compact superharmonic functions: path regularity and tightness of capacities. *Complex Anal. and Operator Th.* **5** (2011), 731–741.
- L. Beznea and A.-G. Oprina: A class of subordination operators on a direct sum, *Math. Rep.* **12** (2010) 119–126.
- L. Beznea and N. Boboc: Measures not charging polar sets and Schrödinger equations

in  $L^p$ . *Acta Mathematica Sinica, English Series* **26** (2010), 249–264.

- L. Beznea and N. Boboc: Feynman-Kac formula for left continuous additive functionals and extended Kato class measures. *Potential Analysis* **30** (2009), 139–164.
- L. Beznea, N. Boboc, and M. Röckner: Markov processes associated with  $L^p$ -resolvents, applications to quasi-regular Dirichlet forms and stochastic differential equations *C. R. Acad. Sci. Paris Ser. I* **349** (2008), 323–328.
- L. Beznea, A. Cornea, and M. Röckner: Compact excessive functions and Markov processes: a general case and applications. In *RIMS Proceedings, Kokyuroku Bessatsu*, **B6**, pp. 31–37, Kyoto 2008.
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- L. Beznea, N. Boboc, and M. Röckner: Markov processes associated with  $L^p$ -resolvents and applications to stochastic differential equations on Hilbert space. *J. Evol. Eq.* **6** (2006), 745–772.
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