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With rigor, elegance and great energy, Terry Rockafellar has been instrumental in developing the basic treatment of convex analysis that we all use today: conjugacy and duality, epigraphical analysis, subdifferentials, constrained extremum and minimax problems. He applied them to topics such as augmented Lagrangians, nonsmooth optimization, sensitivity analysis, variational problems, optimal control, network programming, extended linear-quadratic programming, and of course, stochastic programming. He was awarded the Dantzig Prize by SIAM/MPS in 1982.

Rockafellar's early work in stochastic programming, which is still actively referenced, studies integrals that are convex functionals. One of the major results states that when the integrand is *normal* and the linear space of measurable functions over which the functional is optimized is *decomposable,* then the infimum and integration operations commute.

The remarkable collaboration of Terry Rockafellar and Roger Wets over the past four decades has made invaluable intellectual contributions. They've provided influential voices of support for stochastic programming during their service on editorial and institutional review boards. Their collaboration began with the study of Lagrange multipliers for nonanticipativity constraints. This prepared the way for their development of the progressive hedging algorithm, in which a Lagrangian relaxation of the nonanticipativity constraints allows the use of deterministic solvers.

Rockafellar is a powerful presence in stochastic programming. His consistent support for this approach to decision making has inspired students around the world to work in this field. His generous collaborations, especially with Wets, have set a fine example for scientific cooperation in our field. During the 1990's they produced the volume *Variational Analysis,* which instantly became the major reference work in optimization theory. This book earned them the INFORMS Lanchester Prize in 1997. Subsequently, in 1999, he was awarded the John von Neumann theory prize, also from INFORMS.

Terry has also been awarded honorary doctorates from the University of Groningen (Netherlands), the University of Montpellier (France), the University of Chile, and the University of Alicante (Spain).

Recently, Rockafellar has turned his attention to problems at the foundation of risk management in finance, with collaborators Stan Uryasev and William T. Ziemba.

Selected Contributions

- *Convex Analysis*, Princeton University Press, 1970.
- "Integral functionals, normal integrands and measurable selections," in *Nonlinear Operators and the Calculus of Variations*, L. Waelbroeck (ed.), Lecture Notes in Mathematics, no. 543, Springer-Verlag (1976).
- Nonanticipativity and L1-martingales in stochastic optimization problems (with R. Wets). *Mathematical Programming Study* 6 (1976) 170 – 187.
- "Generalized linear-quadratic problems of deterministic and stochastic optimal control in discrete time," (with R. Wets). *SIAM Journal of Control and Optimization* (1990).
- "Scenarios and policy aggregation in optimization under uncertainty," (with R. Wets). *Mathematics of Operations Research* 16 (1991) 119 – 147.
- *Variational Analysis* (with R. Wets). Springer-Verlag, (1997).
- "Conditional Value-at-Risk," (with S. *nal of Risk*, (2000).