

**Elena Rovenskaya**  
*Curriculum Vitae*

**General Information**

Dr. Rovenskaya is an applied mathematician, she defended her PhD in 2006 at the Lomonosov Moscow State University, Russia with the dissertation entitled "On solving the problem of finding the optimal compatibility parameter value for a class of equations in a normalized space". Her current research interests extend to *optimization, decision-making, mathematical modeling, economic and environmental applications*.

**Employment History**

Dr. Rovenskaya graduated from the Faculty of Physics, Lomonosov Moscow State University, Russia and had her PhD study there at the Faculty of Computational Mathematics and Cybernetics. After receiving the PhD degree, she was accepted as a Junior Research Scholar Position, since 2010 she is a Research Scholar at the Faculty of Computational Mathematics and Cybernetics, Lomonosov Moscow State University.

Dr. Rovenskaya was collaborating with the International Institute for Applied Systems Analysis as a Research Scholar since 2006. In 2012 she became an Acting Leader of the Advanced Systems Analysis Program, since July 2014 she is the Director of the Advanced Systems Analysis Program.

**Selected Publications**

A.Kharrazi, E.Rovenskaya, B.D.Fath, M.Yarime, S.Kraines. *Quantifying the sustainability of economic resource networks: An ecological information-based approach*. Ecological Economics, 2013, 90: 177-186.

D.Wiedenhofer, E.Rovenskaya, W.Haas, I.Pallua, M.Fischer-Kowalski. *Is there a 1970s syndrome? Analyzing Structural Breaks in the Metabolism of Industrial Economies*, In: Energy Procedia, European Geosciences Union General Assembly 2013, EGUDivision Energy, Resources & the Environment, ERE, M.Kühn, C.Juhlin, H.Held, V.Bruckman, T.Tambach and T. Kempka (Eds.), 2013, 40: 182–191.

E.Rovenskaya, V.Veschinskaya, B.D.Fath, U.Dieckmann, A.Braennstroem. *Ecological flow analysis of network collapse II: Indicators of ecosystem level vulnerability*. In: iEMSs 2012: Managing Resources of a Limited Planet, R.Seppelt, A.A.Voinov, S.Lange, D.Bankamp (Eds.), 1-5 July 2012, Leipzig, Germany, 279-284

B.D.Fath, E.Rovenskaya, V.Veschinskaya, U.Dieckmann, A.Braennstroem. *Ecological flow analysis of network collapse I: New methodology to investigate network collapse dynamics*. In: iEMSs 2012: Managing Resources of a Limited Planet, R.Seppelt, A.A.Voinov, S.Lange, D.Bankamp (Eds.), 1-5 July 2012, Leipzig, Germany, 271-278

E.A.Rovenskaya. *A model of economic growth and associated environmental quality*. Mathematical Game Theory and its Applications, 2011, 3(3): 67-84.

U.Lehmijoki, E.Rovenskaya. *Environmental mortality and long-run growth*. In: Dynamic Systems, Economic Growth, and the Environment Series: Dynamic Modeling and Econometrics in Economics and Finance, J.Crespo Cuaresma, T.Palokangas, A.Tarashev (Eds.), Springer-Verlag, Heidelberg, Germany, 2010, 239-258.

E.Rovenskaya. *Optimal economic growth under stochastic environmental impact: sensitivity analysis*. In: Dynamic Systems, Economic Growth, and the Environment Series: Dynamic Modeling and Econometrics in Economics and Finance, J.Crespo Cuaresma, T.Palokangas, A.Tarashev (Eds.), Springer-Verlag, Heidelberg, Germany, 2010, 79-107.

G.Lobanova, B.D.Fath, E.Rovenskaya. *Exploring simple structural configurations for optimal network mutualism*. Communications in Nonlinear Science and Numerical Simulation, 2009, 14 (4): 1461-1485.