

**ACADEMIA DE STUDII ECONOMICE DIN BUCUREȘTI**  
**DOMENIUL: ECONOMIE ȘI ADMINISTRAREA AFACERILOR**  
**SCOALA DOCTORALĂ: CIBERNETICĂ ȘI STATISTICĂ ECONOMICĂ**

## **TEZA DE ABILITARE**

**METODE CANTITATIVE APLICATE**

**Candidat: Prof. univ. dr. Claudiu Herțeliu**

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## Rezumat

Domeniul major de cercetare al lui Claudiu Herțeliu îl reprezintă metodele cantitative aplicate în câteva arii socio-economice precum: (a) dezvoltarea rurală; (b) demografia; (c) scientometria. În zilele noastre utilizarea metodelor cantitative în diverse domenii academice este aproape permanent. Evident, există lucrări în care argumentele științifice sunt produse într-o manieră calitativă sau mixtă (calitativă-cantitativă) (Jick, 1979; Cavana *et al.*, 2001; Neuman, 2013; Kaplan & Duchon, 1988). Cu toate acestea, o multitudine de cercetări sunt focalizate pe utilizarea metodelor cantitative în general (Nardi, 2018; Render *et al.*, 2017; Tonidandel *et al.*, 2018) sau în ceea ce privește dezvoltarea rurală/ demografia/ scientometria în mod special (Meinzen-Dick *et al.*, 2004; Jeong *et al.*, 2018; Bloem *et al.*, 2018; Pope & Stanistreet, 2018; Caswell & Zarulli, 2018; van Raan, 1996; Glänzel & Schoepflin, 1994; van Raan, 1996; Bornmann, 2017; Martín-Martín *et al.*, 2018).

După absolvirea stagiului doctoral (sfârșitul anului 2006) și obținerea confirmării din partea Ministerului Educației și Cercetării în primăvara anului 2007, Claudiu Herțeliu a reușit cu succes să își promoveze principalele idei de cercetare științifică în reviste academice relevante (Archives of the Balkan Medical Union, Economic Computation and Economic Cybernetics Studies and Research, Entropy, Human Reproduction, Journal of Applied Quantitative Methods, Lancet, Physica A: Statistical Mechanics and its Applications, Publications, Quality & Quantity, Scientometrics) sau în cărți și volume de specialitate. Alte zone de interes în cercetarea științifică care exced nucleul menționat mai sus (dezvoltarea rurală/ demografia/ scientometria) sunt focalizate pe economie (Andrei *et al.*, 2017; Jianu *et al.*, 2014; Geambașu *et al.*, 2014), econofizică (Ileanu *et al.*, 2018; Rotundo *et al.*, 2015) sau epidemiologie (Andrei *et al.*, 2013; Marian *et al.*, 2013; Griswold *et al.*, 2018; Fullman *et al.*, 2018; Wang *et al.*, 2017; Abajobir *et al.*, 2017).

Urmare a limitărilor de spațiu a prezentei teze, doar o selecție a lucrărilor publicate este prezentată. Astfel, unele lucrări relevante în domeniul demografiei (Herțeliu *et al.*, 2018; Ausloos *et al.*, 2015) nu au fost incluse. În continuare, teza de abilitare este organizată după cum urmează: (i) capitolul #2 focalizat pe dezvoltarea rurală include două piese: Herțeliu & Costea, 2011 și o selecție din Herțeliu, 2013; (ii) capitolul #3 focalizat pe demografie include trei piese: Herțeliu *et al.*, 2014; Herțeliu & Fărcășanu, 2011; Herțeliu *et al.*, 2015; (iii) capitolul #4 focalizat pe scientometrie conține două piese: Herțeliu *et al.*, 2017 și o selecție din Boja *et al.*, 2018.

## Bibliografie

Abajobir, A. A. *et al.* ([...]Andrei, C. L. [...] Herteliu, C. [...] Ileanu, B. V. [...] Pana, A. [...] Murray, C. J. L.) Global, regional, and national under-5 mortality, adult mortality, age-specific mortality, and life expectancy, 1970–2016: a systematic analysis for the Global Burden of Disease Study 2016, *The Lancet*, volume. 390, Issue 10100, 2017, pp. 1084 – 1150

- Andrei, C. L., Herteliu, C., & Sinescu, C. (2013). The Use of Quantitative Techniques in the Analysis of Geographical Features Regarding Patients with Acute Coronary Syndromes. *Economic Computation and Economic Cybernetics Studies and Research*, 47(1), 133-150.
- Andrei, T. Oancea, B., Richmond, P., Dhesi, G. and Herteliu, C. Decomposition of the Inequality of Income Distribution by Income Types—Application for Romania, *Entropy*, vol. 19, no 9, 430, September 2017
- Ausloos, M., Herteliu, C. and Ileanu, B.V. Breakdown of Benford's Law for Birth Data, *Physica A: Statistical Mechanics and its Applications*, Vol. 419, 2015, pp. 736-745
- Bloem, J. R., Boughton, D., Htoo, K., Hein, A., & Payongayong, E. (2018). Measuring Hope: A Quantitative Approach with Validation in Rural Myanmar. *The Journal of Development Studies*, 54(11), 2078-2094.
- Boja, C.E., Herteliu, C., Dârdală, M. and Ileanu, B.V. Day of the week submission effect for accepted papers in Physica A, PLOS ONE, Nature and Cell, *Scientometrics*, 2018, DOI <https://doi.org/10.1007/s11192-018-2911-7>
- Bornmann, L. (2017). Measuring impact in research evaluations: a thorough discussion of methods for, effects of and problems with impact measurements. *Higher Education*, 73(5), 775-787.
- Caswell, H., & Zarulli, V. (2018). Matrix methods in health demography: a new approach to the stochastic analysis of healthy longevity and DALYs. *Population health metrics*, 16(1), 8.
- Cavana, R. Y., Delahaye, B. L., & Sekaran, U. (2001). *Applied business research: Qualitative and quantitative methods*. John Wiley & Sons Australia.
- Fullman, N. Yearwood, L. et al. ([...] Andrei, C. L. [...] Herteliu, C. [...] Ileanu, B. V. [...] Mirică, A. [...] Pana, A. [...] Murray, C. J. L., Lozano, R.) Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016, *The Lancet*, volume. 391, Issue 10136, 2018, pp. 2236–2271
- Geambașu, C., Jianu, I., Herteliu, C. and Geambașu, L. Macroeconomic Influence on Shares' return Study Case: Arbitrage Pricing Theory (APT) Applied on Bucharest Stock Exchange, *Journal of Economic Computation and Economic Cybernetics Studies and Research*, no. 2, 2014, pp. 133-150
- Glänzel, W., & Schoepflin, U. (1994). Little scientometrics, big scientometrics... and beyond?. *Scientometrics*, 30(2-3), 375-384.
- Griswold, M., Fullman, N. Hawley, C. et al. ([...] Andrei, C. L. [...] Herteliu, C. [...] Ileanu, B. V. [...] Mirică, A. [...] Pana, A. [...] Murray, C. J. L., Gakidou, E.) Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016, *The Lancet*, 2018
- Herteliu, C. & Costea, A. The Villages' Development Level from Dobrogea Region, *Journal of Applied Quantitative Methods*, Vol. 6, No. 2, Summer 2011, pp. 22-26

- Herțeliu, C. and Fărcășanu, A. The Religious Affiliation Structure of the Villages from Romania, *Journal of Applied Quantitative Methods*, Vol. 6, No. 1, Spring 2011, pp. 121-128
- Herteliu, C. Ausloos, M., Ileanu, B.V., Rotundo, G. and Andrei, T. Quantitative and Qualitative Analysis of Editor Behavior through Potentially Coercive Citations, *Publications*, vol. 5, no 2, 15, June 2017
- Herțeliu, C. *Nivelul de Dezvoltare al Comunelor din Transilvania – Interconexiuni cu Etnia și Religia*, Ed. ASE, Bucharest, 2013
- Herțeliu, C., Andrei, T. and Ileanu, B.V. The Ukrainian Community in Banat – Short Quantitative Analysis, *Procedia-Economics and Finance*, Elsevier, Vol. 10, 2014, pp. 32-44
- Herțeliu, C., Ileanu, B.V., Ausloos, M. and Rotundo, G. Effect of religious rules on time of conception in Romania from 1905 to 2001, *Human Reproduction*, vol. 30, no. 9, September 2015, pp. 2202-2214
- Herțeliu, C., Richmond, P. and Roehner, B. Deciphering the fluctuations of high frequency birth rates, *Physica A: Statistical Mechanics and its Applications*, volume 509, 2018, pp. 1046-1061
- Ileanu, B. V., Ausloos, M., Herteliu, C. and, Cristescu, M.P. Intriguing behavior when testing the impact of quotation marks usage in Google search results, *Quality & Quantity*, 2018, DOI <https://doi.org/10.1007/s11135-018-0771-0>
- Jeong, J. S., García-Moruno, L., Hernández-Blanco, J., Sánchez-Ríos, A., & Ramírez-Gómez, Á. (2017). Identifying priority areas for rural housing development using the participatory multi-criteria and contingent valuation methods in Alange reservoir area, Central Extremadura (Spain). *Journal of rural studies*, 50, 117-128.
- Jianu, I., Jianu, I., Ileanu, B.V., Nedelcu, M. and Herțeliu, C. The Value Relevance of Financial Reporting in Romania, *Journal of Economic Computation and Economic Cybernetics Studies and Research*, no. 4, 2014, pp. 167-182
- Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative science quarterly*, 24(4), 602-611.
- Kaplan, B., & Duchon, D. (1988). Combining qualitative and quantitative methods in information systems research: a case study. *MIS quarterly*, 571-586.
- Marian, M., Câmpeanu, A., Popa, C. and Herțeliu, C. Study on the Occurrence of Ischemic Stroke in Patients with Aortic Atheromatosis, *Archives of the Balkan Medical Union*, 2013, vol. 48, no. 4, pp. 348-353
- Martín-Martín, A., Orduna-Malea, E., & López-Cózar, E. D. (2018). A novel method for depicting academic disciplines through Google Scholar Citations: The case of Bibliometrics. *Scientometrics*, 114(3), 1251-1273.
- Meinzen-Dick, R., DiGregorio, M., & McCarthy, N. (2004). Methods for studying collective action in rural development.
- Nardi, P. M. (2018). *Doing survey research: A guide to quantitative methods*. Routledge.

- Neuman, W. L. (2013). *Social research methods: Qualitative and quantitative approaches*. Pearson education.
- Pope, D., & Stanistreet, D. (2017). *Quantitative methods for health research: a practical interactive guide to epidemiology and statistics*. John Wiley & Sons.
- Render, B., Stair Jr, R. M., Hanna, M. E., & Hale, T. S. (2017). *Quantitative analysis for management*. Pearson.
- Rotundo, G., Ausloos, M., Herțeliu, C. and Ileanu, B.V. Hurst exponent of very long birth time series in XX century Romania. Social and religious aspects, *Physica A: Statistical Mechanics and its Applications*, Vol. 429, 2015, pp. 109-117
- Tonidandel, S., King, E. B., & Cortina, J. M. (2018). Big data methods: Leveraging modern data analytic techniques to build organizational science. *Organizational Research Methods*, 21(3), 525-547.
- van Raan, A. (1996). Advanced bibliometric methods as quantitative core of peer review based evaluation and foresight exercises. *Scientometrics*, 36(3), 397-420.
- Van Raan, A. (1997). Scientometrics: State-of-the-art. *Scientometrics*, 38(1), 205-218.
- Wang, H. Naghavi, M. et al. ([...] Andrei, C. L. [...] Herteliu, C. [...] Ileanu, B. V. [...] Pana, A. [...] Murray, C. J. L.) Global, regional, and national age-sex specific mortality for 264 causes of death, 1980–2016: a systematic analysis for the Global Burden of Disease Study 2016, *The Lancet*, volume. 390, Issue 10100, 2017, pp. 1151 – 1210