

**Main Trends in the Study  
of Regional Innovation Systems:  
An Author  
Co-Citation Analysis**

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# **Main Trends in the Study of Regional Innovation Systems: An Author Co-Citation Analysis**

Though various authors have offered reviews of the RIS literature and some have described their personal intellectual voyage amongst the building blocks that constitute this area of scientific enquiry (for example, Cooke 2008), these often illuminating illustrations are nonetheless subjective and, thus, suffer from biases which pertain to the actor performing the analysis. The study proposed in this paper aims to overcome the aforementioned limitation by elaborating an objective review of the main contributions to the RIS field of research, highlighting the main themes studied and the principal approaches followed. The analysis has been conducted following the Author Co-citation method, applied to the literature regarding RIS present in the Social Science Citation Index (SSCI) of Thomson-ISI in the time span from 1990 to 2009.

The initial data set counted 211 contributions, but the application of criteria which allow to screen out the research pieces which actually characterize and shaped the field left 24 foundational papers. The use of the ACA method of analysis has allowed to trace an overview of how the RIS research area is actually composed, identifying the main research themes which characterize the field and the varied perspectives adopted. The former are: (A) System of Innovation, with 8 papers; (B) Regional System of Innovation, with 3 papers; (C) Innovation and Cluster, with 9 papers; (D) Regional Competitiveness, with 2 papers and (E) learning and innovation, with 2 papers; the latter are: (1) Regional Science; (2) Economics of Innovation; (3) Social Embeddedness; (4) Evolutionary Economic Geography; (5) Knowledge and Organizational Learning; (6) International Business.

The results obtained from the analysis conducted reveal a number of distinct traits which characterize the RIS field of research. Firstly, the discipline appears varied in relation both to the particular themes treated and to the interpretative lenses adopted to study RIS, reflecting to some extent the multiple backgrounds of the authors who have contributed to this body of literature. The MDS map and the cluster analysis performed vividly illustrate the richness of themes treated - which range from the definitional issues underlying the RIS concept and the comprehension of the linkages between the different actors within RIS, to more "spatial" and social studies in which the specific institutional characteristics of territories are highlighted, to analyses whose focus is on the different types of knowledge which characterize a territory and how this feeds firm innovative capacities, to the evolutionary focus on knowledge and competences embedded in particular territories, and finally the network approach that extends RIS reasoning to the linkages between different territories. The position of the different papers within the clusters along the axes of the map also illustrates that the themes treated are often further enriched by a variety of approaches according to which each one is considered, which range from micro to macro level perspectives and from major focus on regional innovation to firm innovation. This array of themes and approaches which characterize the RIS literature may be considered positively, as the interface and confrontation between different stances often fosters a more thorough explanation of phenomena than single monolithic approaches. However, in order to take advantage of the richness of perspectives within the field there is the necessity to avoid excess fragmentation, whilst facilitating mutual fertilizations between diverse approaches.