

WHO? WHAT? WHERE? WHEN? A SCIENTOMETRICS PERSPECTIVE ON RESILIENCE ENGINEERING

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Abstract

This paper presents an exploratory research on the application of bibliometric methods to the field of Resilience Engineering. Starting from the Kuhnian idea on the structure of scientific revolutions, the aim of this research is to define centres of research and explore how their focus changes over time. The research developments have been traced by studying the science footprints revealed by scholarly publications. Such publications constitute a dynamic and self-organizing knowledge repository which is often difficult to understand systemically. By means of bibliometric indicators, this paper aims to identify who are the major authors in the field, what are the “invisible colleges”, which sources publish main documents, and the respective significant changes over years. A further analysis has been based on the usage of Pennant diagrams for scientometrics, with the purpose of exploring the relevance of an author within a certain literature database, and with respect to other authors.

Through this multi-method exploratory research, we aim to provide an interpretative summary on the research of past and current community of resilience engineers. The analysis aims to define the structure of the scientific field and of the scientific community, proving the usability of meta-analytic tools coming from scientometrics for the analysis of an inter-disciplinary scientific domain such as Resilience Engineering.

Keywords: scientometrics, bibliometric analysis, resilience engineering, review, Pennant diagrams.