

Research Activity in Computational Science Using High Performance Computing: Co-Authorship Network Analysis

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Abstract : The research activities of the computational scientists using high-performance computing are analyzed using bibliometric approaches. This study aims at providing computational scientists using high-performance computing and relevant policy planners with useful bibliometric results for an assessment of research activities. In order to achieve this purpose, we carried out a co-authorship network analysis of journal articles to assess the research activities of computational scientists using high-performance computing as a case study. For this study, we used journal articles of the Scopus database from Elsevier covering the time period of 2006-2015. We extracted the author rank in the computational science field using high-performance computing by the number of papers published during ten years from 2006. Finally, we drew the co-authorship network for 50 top-authors and their coauthors and described some features of the co-authorship network in relation to the author rank. Suggestions for further studies are discussed.

Keywords : co-authorship network analysis, computational science, high performance computing, research activity

Conference Title : ICCS 2016 : International Conference on Computational Science

Conference Location : Barcelona, Spain

Conference Dates : August 11-12, 2016