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Patent Citation Networks KATHERINE STRANDBURG, DePaul University College of Law, JAN TOBOCHNIK, Kalamazoo College, GABOR CSARDI, PETER ERDI, Kalamazoo College and KFKI Research Institute of the Hungarian Academy of Sciences — Patent applications contain citations which are similar to but different from those found in published scientific papers. In particular, patent citations are governed by legal rules. Moreover, a large fraction of citations are made not by the patent inventor, but by a patent examiner during the application procedure. Using a patent database, which contains the patent citations, assignees and inventors, we have applied network analysis and built network models. Our work includes determining the structure of the patent citation network and comparing it to existing results for scientific citation networks; identifying differences between various technological fields and comparing the observed differences to expectations based on anecdotal evidence about patenting practice; and developing models to explain the results.

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