

Abstract Submitted
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Citation Statistics From More Than a Century of Physical Review SIDNEY REDNER, CNLS, LANL, and Boston University — The statistics of citations from all Physical Review journals for the 110-year period 1893 until 2003 are studied. Basic properties of the citation distribution are discussed. It is found that the growth of citations is consistent with linear preferential attachment. The time evolution of citations are also investigated. There is a positive correlation between the number of citations to a paper and the average age of citations. Citations from a publication have an exponentially decaying age distribution; that is, old papers tend to not get cited. In contrast, citations to a publication are consistent with a power-law age distribution, with an exponent close to -1 over a time range of 2-20 years. Finally, strong bursts of citations, as well as other dramatic features in the time history of citations to individual publications, are identified.

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