

Publication Trends in Astronomy: The Lone Author

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Abstract. In this short communication I highlight how the number of collaborators on papers in the main astronomy journals has evolved over time. We see a trend of moving away from single-author papers. This communication is based on data in the holdings of the SAO/NASA Astrophysics Data System (ADS).

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This communication illustrates the trend discussed by Mott Greene in the essay “The demise of the lone author” (Greene (2007)). Trends are likely to be different for different disciplines. As Mott observes: “In most fields outside mathematics, fewer and fewer people know enough to work and write alone”. In addition to this, in most disciplines large (and often multi-national) collaborations have become more common and even unavoidable, because it is the only way to get sufficient funding.

Figure 1 is an illustration of how the distribution of the number of authors has changed over time in the main astronomy journals (*The Astrophysical Journal*, *The Astronomical Journal*, *Monthly Notices of the R.A.S.* and *Astronomy & Astrophysics*).

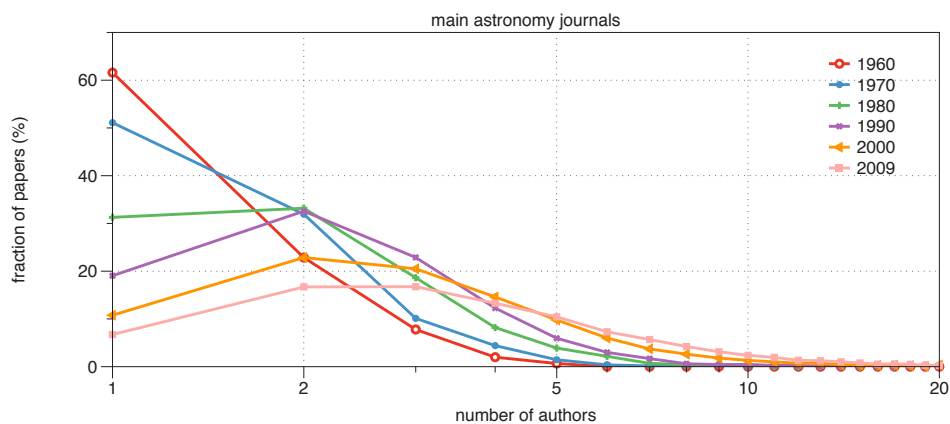


Figure 1. The distribution of the relative frequency of the number of authors per paper in the main astronomy journals for a number of years

Figure 2 highlights the “demise of the lone author” by showing the change in the fraction of single author papers in the main astronomy journals. The fraction in the main physics journals (*Physical Review*, *Nuclear Physics*, *Physics Letters*) has been added for comparison.

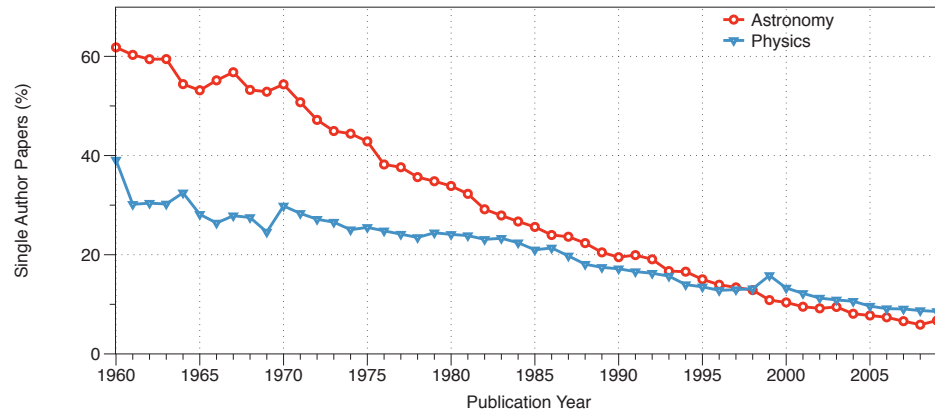


Figure 2. The fraction of papers by single authors in the main astronomy and physics journals

The drop in the astronomy journals is more dramatic than for the physics journals. A factor of about 10 versus a factor of about 3 or 4.

References

Greene, Mott. 2007, *Nature*, 450, 1165 (doi:10.1038/4501165a)