

Researchers who collaborate with others in multiple research areas found to publish more highly cited papers

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A small team of researchers at Beijing Normal University working with a colleague from Bar-Ilan University has found that researchers who

collaborate with other researchers in multiple research areas tend to publish more highly cited papers than do those who generally only work with others in their field. In their paper published in *Proceedings of the National Academy of Sciences*, the group describes analyzing the authorship of papers published in the journal *American Physical Society* and what they learned about collaboration and the degree of impact of authorship of papers under different scenarios.

When researchers produce results they deem worthy of sharing, they submit a paper describing their work to an established journal for publication. Most researchers hope that in addition to sharing what they have learned, they could receive recognition for their achievements. One way that recognition comes about is through [citations](#)—others cite their work as part of their own processes as they conduct new research and publish their own papers. In this new effort, the researchers wondered how [collaboration](#) between researchers on research efforts might impact citations.

The work involved identifying 3,420 researchers who had published at least 50 papers and then looking at citations for those papers and also the background of others who had collaborated with them.

They found that most of the researchers tended to collaborate with people in a small number of fields—just 12% of collaborations covered three or more areas of research. They also found that those researchers who published the most papers tended to collaborate with single-topic associates and had only an average number of citations. On the other hand, those researchers who worked with colleagues from multiple fields tended to have more impact, which translated to more citations, though they only published an average number of papers. They also found that the ratio of multi-topic collaborations has been slowly increasing since the 1940s.

The researchers suggest that [science research](#) is still dominated by single-topic research efforts, which, they further note, tend to lead to fewer groundbreaking results than efforts that involve multi-field collaborations.

More information: An Zeng et al, Impactful scientists have higher tendency to involve collaborators in new topics, *Proceedings of the National Academy of Sciences* (2022). [DOI: 10.1073/pnas.2207436119](https://doi.org/10.1073/pnas.2207436119)

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