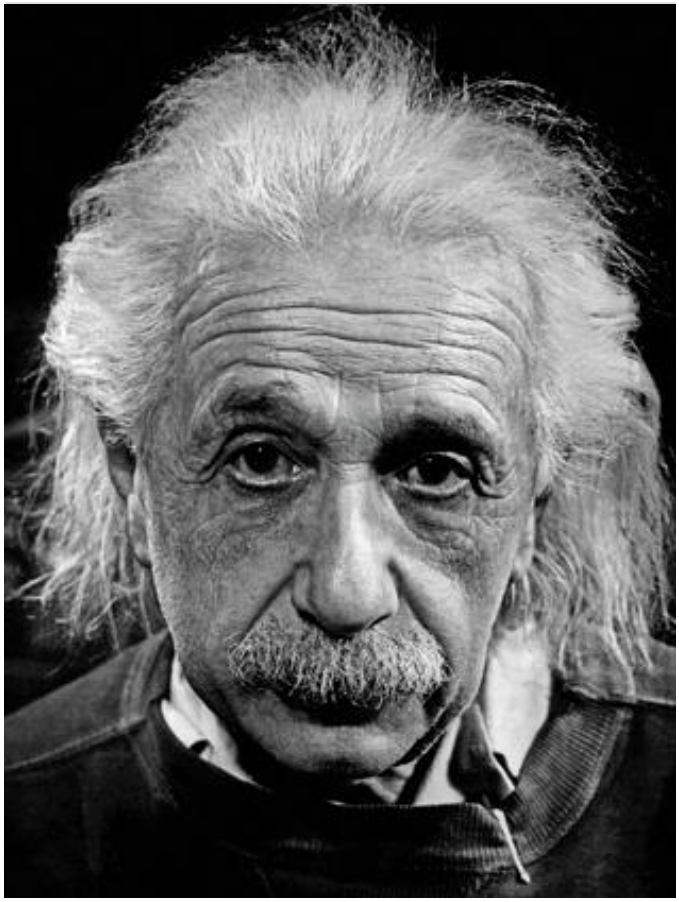
THE AUSTRALIAN

Sleeping beauties good for 100 years

JOHN ROSS THE AUSTRALIAN JUNE 03, 2015 12:00AM

They're the late bloomers of the research world: studies whose importance is suddenly acknowledged decades later. Now, a scientific analysis of scientific analyses has revealed that belated adulation is a common phenomenon.



A 1935 paper co-authored by Albert Einstein has been ranked the 14th top sleeper among science studies. Source: Supplied

Indiana University informaticians have found that "sleeping beauties" — a term coined by Dutch statistician Anthony van Raan — can lie hibernating for 100 years.

"This study provides empirical evidence that a paper can truly be ahead of its time," said Alessandro Flammini, corresponding author of a report in the journal PNAS.

"A premature topic may fail to attract attention even when it is introduced by authors who have already established a strong scientific reputation."

Proving the point, a 1935 paper co-authored by Albert Einstein took 59 years to achieve prominence. Working with Boris Podolsky and Nathan Rosen, Einstein laid out a thought experiment contradicting the idea that subatomic particles could become entangled over vast distances. The paper, known as the EPR Paradox, didn't receive widespread citation until 1994. The paradox was put to rest only this year, in a study conceived by Griffith University researchers.

But the EPR paper was far from the longest sleeper, the Indiana team found. That honour went to statistician Karl Pearson, whose 1901 paper on principal component analysis finally attracted attention in 2002.

The team evaluated almost 23 million papers published across more than a century and ranked them according to their publication dates, citation histories and "awakening" times — the years that brought abrupt changes in their citation patterns.

Top honours, with a "beauty coefficient" of 11,600, went to German chemist Herbert Freundlich. His 1906 paper, Concerning Adsorption in Solutions, achieved its awakening 96 years later.

Second place went to William Hummers for a 1958 paper on a form of graphene, a wonder material

that later won two Russian physicists a Nobel prize in 2010.

×

Share this story

Facebook *(http://facebook.com/sharer.php?u=http://www.theaustralian.com.au/higher-education/sleeping-beauties-good-for-100-years/story-e6frgcjx-1227380174232&t=Sleeping beauties good for 100 years)*
Twitter *(https://twitter.com/intent/tweet?url=http://www.theaustralian.com.au/higher-education/sleeping-beauties-good-for-100-years/story-e6frgcjx-1227380174232&text=Sleeping beauties good for 100 years)*
LinkedIn *(http://www.linkedin.com/shareArticle?mini=true&url=http://www.theaustralian.com.au/higher-education/sleeping-beauties-good-for-100-years/story-e6frgcjx-1227380174232&title=Sleeping beauties good for 100 years)*
Google *(https://plus.google.com/share?url=http://www.theaustralian.com.au/higher-education/sleeping-beauties-good-for-100-years/story-e6frgcjx-1227380174232)*
Email *(mailto:?body=http://www.theaustralian.com.au/higher-education/sleeping-beauties-good-for-100-years/story-e6frgcjx-1227380174232&subject=Sleeping beauties good for 100 years)*