

# Published Research Metrics

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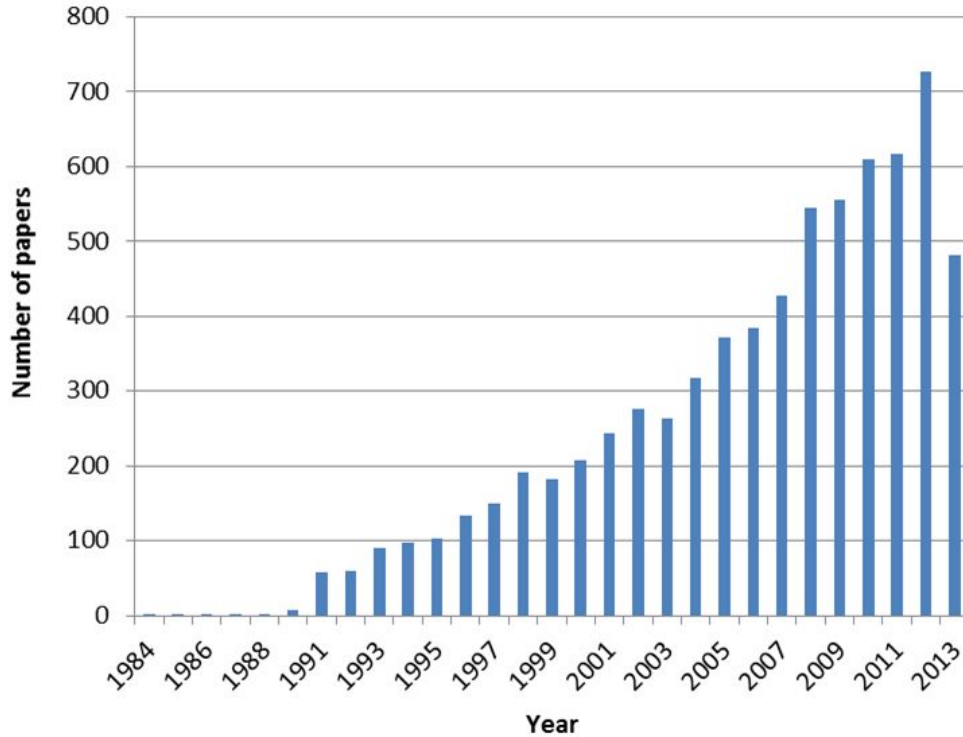
All Subjects



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Kevin Chiv

**Figure 1. Number of Papers from 1984 to 2013**



**Problem:**

Too many papers


**Objective:**

Create better metric for measuring impact factor of published research

Letter | Published: 08 June 2000



# Adhesive force of a single gecko foot-hair

Kellar Autumn, Yiching A. Liang, S. Tonia Hsieh, Wolfgang Zesch, Wai Pang Chan, Thomas W. Kenny, Ronald Fearing & Robert J. Full 

*Nature* **405**, 681–685 (2000) | [Download Citation](#) 

## Abstract

Geckos are exceptional in their ability to climb rapidly up smooth vertical surfaces<sup>1,2,3</sup>. Microscopy has shown that a gecko's foot has nearly five hundred thousand keratinous hairs or setae. Each 30–130  $\mu\text{m}$  long seta is only one-tenth the diameter of a human hair and contains hundreds of projections terminating in 0.2–0.5  $\mu\text{m}$  spatula-shaped structures<sup>2,4</sup>. After nearly a century of anatomical description<sup>2,4,5,6</sup>, here

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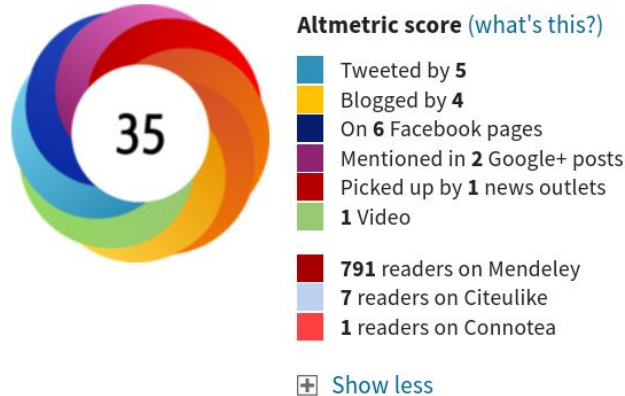
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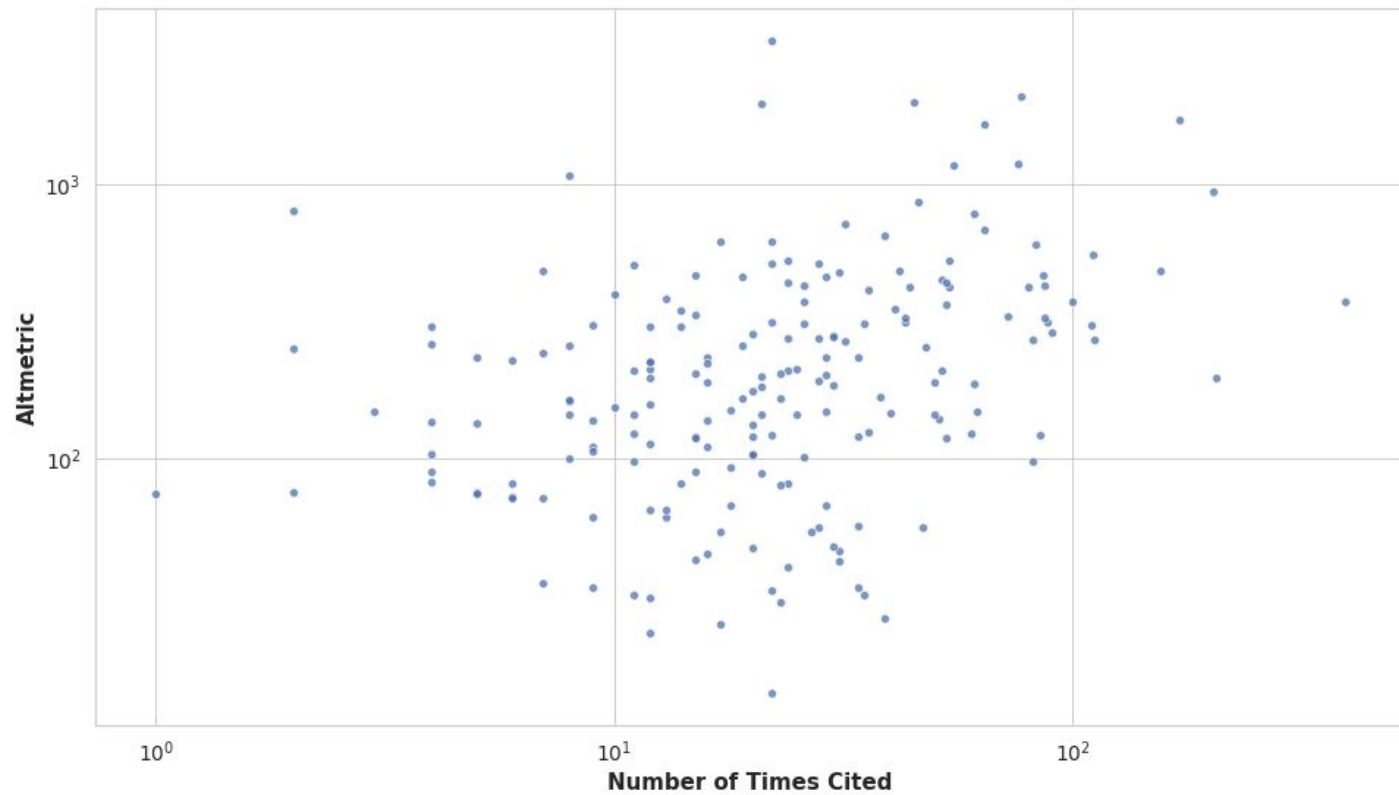
# Dependent: Altmetric

## Independent:

Number of citations,  
number of authors,  
& more



**Number of Times Cited vs Altmetric**



nature  
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K-Fold Cross  
Validation  
With 5 Different  
Regression Models

Best Linear Regression Model: OLS

Key Features:

Coefficients:

Number of Times Cited

1.22

Number of Institutions Involved

1.05

Number of Authors

1.03

Number of References

0.99

Number of Years Since Published

0.62

Training Mean R^2:

Standard Deviation of Training R^2:


Test R^2:

0.56

.04

0.53

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