

Unprecedented Turnout at Salt Lake City as SIAM Conference Marks 50th Year

Data Science: What Is It and How Is It Taught?
 SIAM combined with data science provide this issue of *SIAM News* with an unofficial theme.

SIAM at the National Math Festival

Why Have SIAM Journal Papers Grown So Long?

Symposium Yields Insights on Big Data and Predictive Computational Modeling

Quick! Find a Solution to the Brachistochrone Problem

ACM Prize Finalists In the Spotlight at CSE15

Multifaceted, Multilevel Exploration of the Physics of Sports

Why do race walkers flail their arms? Why do we swim faster underwater? Reviewing

Why Have SIAM Journal Papers Grown So Long?

To the Editor:

Recently at Oxford our Numerical Analysis Group spent an hour looking over early volumes of some journals. We were struck at how short many of the articles were, presenting a key idea or two in a style that would be unusual now. There are some classic examples of brevity, like Householder's introduction of Householder reflectors in four pages (*Journal of the ACM*, 1958) and Cooley and Tukey's announcement of the FFT in five pages (*Mathematics of Computation*, 1965).

Would such short manuscripts be acceptable for publication nowadays?

We decided to look at some data. The figure shows average pages per published paper in SIAP, SINUM, and SISC over the years (omitting errata, addenda, and prefaces). You can see that in the last 45 years, the average length has doubled. This was not planned by SIAM; it just happened.

Most of SIAM's journals have page limit policies you can find posted on the web.

SISC "has a page limit policy of approximately 20 journal pages," SIAP "has a page limit policy of 20 pages per paper," and SINUM "asks that manuscripts not exceed 20 pages." There is little sign of a 20-page limit in the data, however, and as one

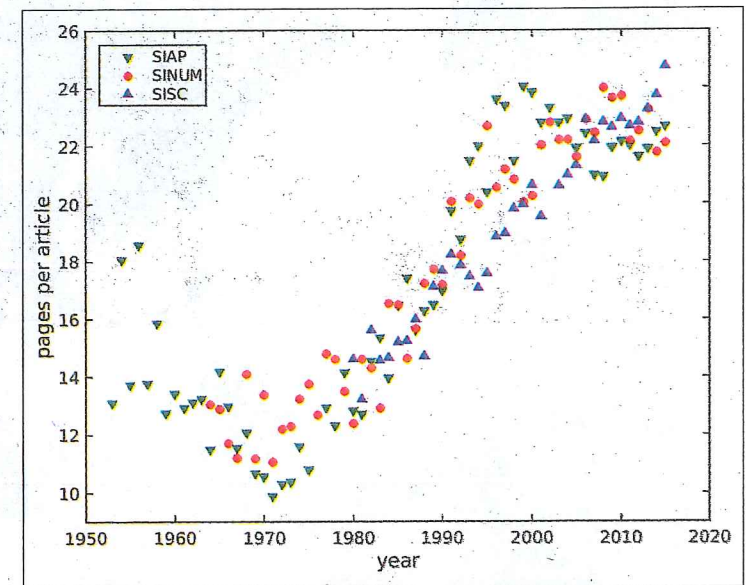
colleague told me, "It is well known that that page limit is not generally enforced." Thus, recent SIAM journal articles offer a rare example of a dataset whose mean exceeds its maximum!

SIAM began to publish articles online in 1997, by the way, so the move from paper to electronic publication cannot explain the trend.

What should we make of this trend? Why have our papers grown so steadily longer? And is this a bug, or a feature? Would it be better

for the applied mathematical community if SIAM journals enforced genuine length limits, as do IEEE journals, for example, or is this not important? If readers have thoughts on this subject I would be glad to hear from you (trefethen@maths.ox.ac.uk), and if interesting responses are received I will report on them later.—*Nick Trefethen, University of Oxford.*

LETTERS TO THE EDITOR



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