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Note from the Editor

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Note from the Editor

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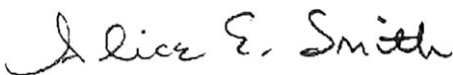
The latest **Impact Factors** for journals have been released and IJOC was one of only four INFORMS journals to increase its impact factor from 2022 to 2023. The IJOC improvement came despite the recalibration of the measure which dampened citations for all journals. While I believe that the impact factor is a quite flawed metric, it seems to be the current gold standard for assessing scholarly publication quality and relevance. As such, it is used widely for tenure and promotion considerations, author decisions on where to send their papers, hiring decisions, etc. But more importantly, as editors and reviewers for IJOC, we strive to publish those papers that can truly make a difference to our research and practice community. And this is what we are most mindful of as we handle submissions.

The journal is interested in publishing high-quality **literature review articles** on timely topics written by accomplished experts. When well done, these papers provide lasting value to a great many investigators. If you are interested in developing such a paper, I urge you to contact the appropriate area editor or myself to further discuss.

We continue to announce the winners of the *INFORMS Journal on Computing (IJOC) Test of Time Paper Award* to cover the backlog of awards since the journal's inception. The energetic and able committee, chaired by John Chinneck with members Bill Cook, Bruce Golden, Pascal Van Hentenryck, and David Woodruff, has selected the awardee, covering the period 1994–1998. What follows is the citation from the award committee and then a reflective interview with the authors about this paper.

I want to thank the committee for its superb efforts and I am very pleased to share this recognition of the impactful heritage of our journal.

All my best,



The Test of Time Award for papers published in the *INFORMS Journal on Computing* in the years 1994–1998 is awarded to:

Numerical Inversion of Laplace Transforms of Probability Distributions

J. Abate and W. Whitt

INFORMS Journal on Computing, 7(1):36–43, 1995

<https://pubsonline.informs.org/doi/abs/10.1287/ijoc.7.1.36>

Test of Time Award Citation 1994–1998

This work describes an elegant, computationally efficient, and accurate method of numerical inversion of Laplace transforms, with an eye toward transforms of cumulative distribution functions. Inverting the transforms is important in the analysis of stochastic systems such as queuing networks. Transformed functions are often much easier to work with computationally, but then, of course, an inversion is needed to access the results. This paper operationalizes previous work in the form of an algorithm and a software implementation that was made available by the authors, which contributed to ongoing research. Although the method is relatively simple, rigorous confirmation of the accuracy required significant effort and is part of the contribution of this work.

Retrospective from Authors Joseph Abate and Ward Whitt

This year, 2024, is the 40th anniversary of a research collaboration that began at AT&T Bell Laboratories in 1984, which led to 39 coauthored publications by Joseph Abate and me from 1987 to 2011. Although we were in different organizations, we shared many research interests. We were able to draw on our different backgrounds (theoretical physics from New York University Courant (Abate) and operations research from Cornell (Whitt)).

Our early papers, such as “Transient Behavior of the M/M/1 Queue: Starting at the Origin” (J. Abate and W. Whitt, *Queueing Systems: Theory and Applications*, 2(1):41–65, 1987), focused on the transient behavior of basic queueing models. Drawing on Abate’s longstanding interest in numerical inversion of Laplace transforms (H. Dubner and J. Abate, Numerical Inversion of Laplace Transforms by Relating Them to the Finite Fourier Cosine Transform, *Journal of the Association for Computing Machinery*, 15:115–123, 1968), these early papers exploited numerical inversion of Laplace transforms.

As part of J. Abate’s efforts to educate me about this somewhat arcane subject, we conducted an extensive review, which led to the paper, “The Fourier-Series Method for Inverting Transforms of Probability Distributions” (J. Abate and W. Whitt, *Queueing Systems*, 10(1):5–88, 1992). After completing that paper, we realized that there remained a need for a concise summary of effective algorithms. That led to the test-of-time awarded paper for the years 1994–1998, “Numerical Inversion of Laplace Transforms of Probability Distributions” (J. Abate and W. Whitt, *ORSA Journal on Computing*, 7:36–43, 1995). It could still serve as a concise introduction. It could be supplemented by the more recent tutorial survey, “An Introduction to Numerical Transform Inversion and Its Application to Probability Models” (J. Abate, G. L. Choudhury, and W. Whitt, *Computational Probability*, W. Grassman (ed.), Kluwer, Boston, MA, 1999, pp. 257–323 (also with Gagan L. Choudhury)).

Our paper receiving the previous test-of-time award for the years 2002–2006, “A Unified Framework for Numerically Inverting Laplace Transforms” (J. Abate and W. Whitt, *INFORMS Journal on Computing*, 18(4):408–421, 2006), was our last (thus far) paper on numerical transform inversion. We think that there is still opportunity for these computational methods to be further exploited.