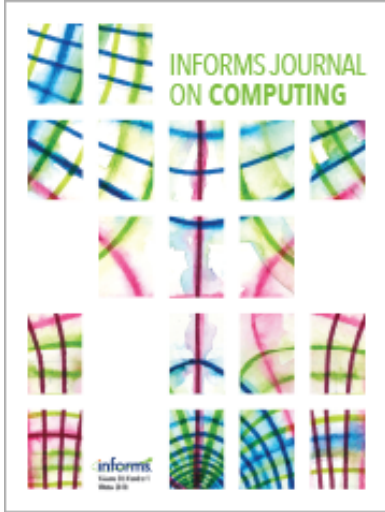




INFORMS Journal on Computing

Publication details, including instructions for authors and subscription information:
<http://pubsonline.informs.org>

Note from the Editor

Alice E. Smith

To cite this article:

Alice E. Smith (2020) Note from the Editor. INFORMS Journal on Computing 32(1):1-2. <https://doi.org/10.1287/ijoc.2019.0948>

Full terms and conditions of use: <https://pubsonline.informs.org/Publications/Librarians-Portal/PubsOnLine-Terms-and-Conditions>

This article may be used only for the purposes of research, teaching, and/or private study. Commercial use or systematic downloading (by robots or other automatic processes) is prohibited without explicit Publisher approval, unless otherwise noted. For more information, contact permissions@informs.org.

The Publisher does not warrant or guarantee the article's accuracy, completeness, merchantability, fitness for a particular purpose, or non-infringement. Descriptions of, or references to, products or publications, or inclusion of an advertisement in this article, neither constitutes nor implies a guarantee, endorsement, or support of claims made of that product, publication, or service.

Copyright © 2020, INFORMS

Please scroll down for article—it is on subsequent pages



With 12,500 members from nearly 90 countries, INFORMS is the largest international association of operations research (O.R.) and analytics professionals and students. INFORMS provides unique networking and learning opportunities for individual professionals, and organizations of all types and sizes, to better understand and use O.R. and analytics tools and methods to transform strategic visions and achieve better outcomes. For more information on INFORMS, its publications, membership, or meetings visit <http://www.informs.org>

Note from the Editor

Alice E. Smith^a

^aDepartment of Industrial and Systems Engineering, Auburn University, Auburn, Alabama 36849

Contact: smithae@auburn.edu (AES)

Published Online in Articles in Advance: January 22, 2020

<https://doi.org/10.1287/ijoc.2019.0948>

Copyright: © 2020 INFORMS

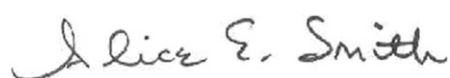
We have started several new awards at the *INFORMS Journal on Computing (IJOC)*, including the *IJOC* Test of Time Paper Award. The specifics of this award are below:

- *Number of awards:* One per calendar year.
- *Goal:* Recognition of a published *IJOC* paper that has proven impactful over a length of time. Considerations can be citations per year, downloads per year, influence of sparking new areas of research, practical implications, significance of findings, and so forth.
- *Criteria:* All those papers published in the time window are considered. A paper can be recognized with this award only once. The time window is defined as a rolling window of 5 years starting 15 years ago.
- *Deadline:* None. Papers are considered on an annual basis.
- *Selection:* Small committee appointed by the editor-in-chief.
- *Recognition:* Certificate of Test of Time Award (transmitted by email) and annual recognition in the journal (paper, authors, affiliations, citation).
- *Procedure:* The set of papers published in *IJOC* during the time window with their citations per year (since publishing) will be sent to the committee members for their deliberation. A winner is selected by the committee, and the editor-in-chief is notified.

I am happy to report that a remarkably able committee chaired by John Chinneck with members Bill Cook, Bruce Golden, Pascal Van Hentenryck, and David Woodruff have selected the inaugural awardee, covering the period 2004–2008. What follows is the citation from the award committee and a reflection on the paper and this award by the authors.

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

My best regards,



The Test of Time Award for papers published in the *INFORMS Journal on Computing* in the years 2004–2008 is awarded to the following:

Scatter Search and Local NLP Solvers: A Multistart Framework for Global Optimization

Zsolt Ugray, Leon Lasdon, John Plummer, Fred Glover, James Kelly, Rafael Martí
INFORMS Journal on Computing (2007) 19(3):328–340
<https://doi.org/10.1287/ijoc.1060.0175>

Not only has this paper attracted a large number of citations, but it continues to be highly cited to this day, many years following publication. In fact, a significant number of the publications are recent, showing that the authors were ahead of their time.

The paper describes the multistart global optimization algorithm in the OptQuest solver, which can handle nonlinear programs in both continuous and integer variables, requiring only that the functions be differentiable with respect to the continuous variables. The algorithm suggests launch points for a local nonlinear solver, holding the integer variables constant, and is able to find global optima for most test problems using very few local solver launches (the most expensive operation).

As well as influencing academic researchers (as shown by the many citations), the paper has influenced the practice of global optimization. A large variety of applications have been successfully attacked using OptQuest, and commercial global optimization solvers such as LINDO have been influenced by the ideas described in the paper. OptQuest has also developed into a leading tool for simulation optimization.

The following are comments on the 2019 *IJOC* Test of Time Paper Award from the authors, Zsolt Ugray, Leon Lasdon, Fred Glover, James Kelly, and Rafael Martí, received on October 14, 2019:

When we started our work on nonlinear mixed integer programming in 2004, we felt that there was an

opportunity to expand on the designs of multistart algorithms to solve these problems. Our flexible framework to combine heuristics as trial solution generators, local solvers supplied with the trial solutions as starting points, procedures to deal with discrete variables, and the inclusion of starting point filters proved to be quite effective. The resulting system described in our 2007 paper incorporated the OptQuest implementation of the scatter search heuristic to generate the trial solutions and the LSGRG local solver to provide high-accuracy solutions. Our work showed that the applications of OptQuest in the simulation optimization domain and of LSGRG in the nonlinear optimization domain could be integrated via a multistart framework to provide a useful technology for additional important classes of problems.

As of October 2019, there are 290 citations of this paper listed in Scopus. The three most cited areas are engineering, computer Science, and mathematics. They indicate the usefulness of the approach for applications and as a starting point for further algorithm developments. Another mark of the versatility of the framework is the existence of multistart solvers in many modeling languages and platforms, including MATLAB, TOMLAB, AIMMS, LINGO, and Frontline Systems' Enhanced Excel Solver.

We would like to thank the editors of the *INFORMS Journal on Computing* and the members of the 2019 *IJOC* Test of Time Paper Award committee for selecting our paper for this award. We also wish to remember our late colleague, John Plummer, who contributed so much to our work.