A Message From the New Editor-in-Chief

IT is a great privilege to serve as the Editor-in-Chief of the IEEE TRANSACTIONS ON SIGNAL PROCESSING (TSP). Over the years, IEEE TSP has established a strong reputation as the world's most important publication in signal processing. I am truly honored and excited by the opportunity to shape and steer the future of this premiere international journal in signal processing. It is a great responsibility.

Thanks to the strong leadership of my predecessors such as Ali Sayed, Alle-Jan van der Veen, and Athina Petropulu, today's IEEE TSP is in a very good shape. It currently attracts more than 2000 submissions per year, and yet has a short average review cycle of about seven months from submission to acceptance. This is quite remarkable for a journal of our size and is only made possible by the great work of a dedicated editorial board and staff. Moreover, IEEE TSP has significantly improved its standing in recent years in terms of the impact factor rankings. We must maintain this momentum and continue to excel, improve, and innovate in the review process. We must maintain a high standard to make IEEE TSP the premiere forum for signal processing researchers to publish and access results of the highest quality.

To further strengthen the leading position of IEEE TSP, we must continue our diligent editorial work while carefully addressing a few important challenges that I outline below. First, we need to set an even higher standard for our journal. Since 2002, the number of published pages in IEEE TSP roughly doubled (from 3200 to 6500). While this represents a strong growth in our field, it does put IEEE TSP on a path that is unsustainable. We should and can be more selective in accepting manuscripts for publication. We should definitely reject marginal and/or low quality manuscripts. Papers containing a novel but less developed idea should be published more quickly as letters in the IEEE SIGNAL PROCESSING LETTERS.

Secondly, we should work hard to attract papers on i) important experimental work involving real data; ii) timely overviews on important signal processing topics by leading experts; and iii) new SP applications related to wireless communication, Internet, power grid, data mining, bio-informatics and so on. Ideally, IEEE TSP should not publish papers with unrealistic assumptions and lots of uninspiring math, because they could give misleading conclusions in practice. A well designed experiment (e.g., an implementation of a test bed, or a computational study involving a large data set) can sometimes provide valuable insights on the efficacy of existing SP algorithms or the relevance of commonly used assumptions; it may also suggest exciting new research issues. Right now, papers reporting this type of experimental work are too low in number and should be encouraged in IEEE TSP. That said, the vast majority of IEEE TSP papers will continue to have novel algorithms and insightful theoretical analyses with practical SP relevance. Overview papers can provide an in-depth coverage of hot signal processing topics in a way that is much more substantial than a typical tutorial paper from the signal processing magazine. As such, the overview papers can be a very valuable reference and a guide for expert researchers as well as novice researchers who wish to get into a new area of research. Currently, we have too few overview papers in TSP, and more are needed to help spur growth in areas of practical importance.

Thirdly, as one of IEEE larger publications, TSP has a large number of editors and reviewers; this naturally results in some variations of editorial decisions on manuscripts. In the coming months, I will work closely with the Associate Editors and Area Editors to minimize the variations in the acceptance standards. I believe this is a very important step towards further improving the standard and reputation of our journal. IEEE TSP cannot maintain its strong reputation without the active support and participation of the signal processing research community. I invite you to send me your suggestions to further enhance the quality and visibility of the TSP. I look forward to working with you during the next three years to take TSP to the next level of excellence.

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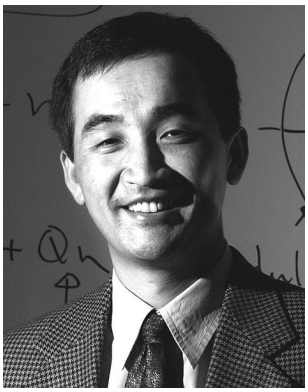

Zhi-Quan (Tom) Luo (F'07) received the B.Sc. degree in applied mathematics from Peking University, China, in 1984 and the Ph.D. degree in operations research from the Massachusetts Institute of Technology (MIT), Cambridge, in 1989.

From 1989 to 2003, he was with the Department of Electrical and Computer Engineering, McMaster University, Canada, where he later served as the department head and held a senior Canada Research Chair in Information Processing. He is currently a Professor in the Department of Electrical and Computer Engineering at the University of Minnesota (Twin Cities), where he holds an endowed ADC Chair in digital technology. His research interests lie in the union of optimization algorithms, data communication and signal processing.

Dr. Luo is a recipient of the IEEE Signal Processing Society's Best Paper Award in 2004 and 2009, and the EURASIP Best Paper Award in 2011. He was awarded the 2010 Farkas Prize from the INFORMS Optimization Society. He currently chairs the IEEE Signal Processing Society's Technical Committee on Signal Processing for Communications and Networking (SPCOM). He has held editorial positions for several international journals, including the *Journal of Optimization Theory and Applications*, the *Mathematics of Computation*, the IEEE TRANSACTIONS ON SIGNAL PROCESSING, the *SIAM Journal on Optimization*, *Management Sciences* and *Mathematics of Operations Research*. He is Editor-in-Chief (2012–2014) for the IEEE TRANSACTIONS ON SIGNAL PROCESSING. He is a fellow of SIAM.

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