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## Age of Information: Concept, Metric and Tool for Network Control

Guest Editors:

**Prof. Dr. Anthony Ephremides**

ECE Department, University of  
Maryland, College Park, MD  
20742, USA

**Prof. Dr. Yin Sun**

Department of Electrical and  
Computer Engineering, Auburn  
University, Auburn, AL 36849-  
5201, USA

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### Message from the Guest Editors

The concept of information freshness has developed over the last few years into an active and rapidly growing area of research. It has become known as the Age of Information (AoI). After its initial formal introduction, it became clear that it was very relevant (if not crucial) for numerous applications, ranging from autonomous vehicle systems, internet of things, real-time computing to database access, caching, and wireless communications. More importantly, the combination of transmission delay and sampling rate that are involved in the formulation of the AoI concept made it clear that there are far-reaching consequences in the relationship between signal processing, information theory, and control theory at a fundamental level.

In this Special Issue, we aim at attracting contributions that span the full range of applications and theoretical foundations of the AoI concept, which, in fact, is also a performance metric and an analysis tool. Of special interest is the role of AoI in bridging different disciplines and the use of AoI in the analysis and optimization involved in important applications.



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# Special Issue



# entropy



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## Editor-in-Chief

### **Prof. Dr. Kevin H. Knuth**

Department of Physics, University  
at Albany, 1400 Washington  
Avenue, Albany, NY 12222, USA

## Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

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Entropy Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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