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May 24, 2011

To the Information Theory Society Paper Award Committee

**Re: member report on the nominated paper**

Tatikonda, S. and Mitter, S., “The Capacity of Channels With Feedback,”  
*IEEE Trans. Inform. Th.*, Vol. 55, No. 1, 2009, Page(s): 323 - 349.

The paper introduces a general framework for studying channels with memory and feedback. Virtually all channels in today’s communications practice belong to this class. In that sense, in addition to its undisputable theoretical contributions, the paper can claim important practical relevance, as well as contributions of computational techniques (e.g. calculations by a dynamic program).

The sheer number of papers (71) that the Google Scholar lists as referencing this paper can serve to prove the broad impact the paper has already made. Such broad relevance comes from the paper’s concern with a fairly general class of channels. Nevertheless (or even because of that), the paper is hard to read. I would expect this paper to serve as a desk reference for researches who are already working in this area and really need to know the paper’s results and techniques rather than “to stimulate interest in and encourage contributions to fields of interest of the Society”. However, the number of people in the former group has been large.

In summary the paper deserves the award as a mastodonic treatise rather than an exciting and stimulating read.

Sincerely,

Emina Soljanin