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better:
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Scholarship Skills
Structure—Parts of a Document

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Use an action verb if you can.
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Question: How much of the paper should I have to read before the plot is clear?
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• End of the Introduction?
• Conclusion?
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Abstract should be a mini-paper — state motivation, problem, approach, and results
No citations — exception is abstracts for publication in conference programs.
Don’t make the abstract a table of contents, or a condensation of the introduction
  Repeating phrases in the introduction is annoying
Be specific
  Not “we consider three problems”
  Say what the problems are
  Do give away the ending—this is not a teaser for a mystery novel!
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Explains the whole paper. Readers “shop” by looking at abstracts.

Try not to start with “In this paper” or “This paper presents”

Usually the last thing to write … and the first thing to write.
Abstract
Beck on Abstracts (2)

I try to have four sentences in my abstract. The first states the problem. The second states why the problem is a problem. The third is my startling sentence. The fourth states the implication of my startling sentence. An abstract for this paper done in this style would be:

The rejection rate for OOPSLA papers is near 90%. Most papers are rejected not because of a lack of good ideas, but because they are poorly structured. Following four simple steps in writing a paper will dramatically increase your chances of acceptance. If everyone followed these steps, the amount of communication in the object community would increase, improving the rate of progress.
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Abstract

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Abstract

Most Data-stream Management Systems process streams of data into windows defined over timestamps or tuple counts. Frames and predicate windows are two alternatives to traditional windowing mechanisms.
Abstract

Designing a (bio)chemical system, where molecular species freely flow and interact with each other, is a long and expensive process. I show that a chemical perceptron provides a general template, which can be trained, and used instead of one-purpose-designed chemical systems. I model a perceptron, the simplest system capable of adaptation, inspired by the functioning of an actual biological neuron, as a discrete-time artificial chemistry (AC). Artificial chemistries are formal systems composed by a set of species, reactions, and reaction rates. AC perceptron can successfully identify all 14 linearly separable two-input logic functions, and maintains high robustness against reaction rate perturbations. I suggest that chemical perceptron can potentially realize reusable, programmable and adaptable wet biochemical computing.
Abstract

Functional logic languages provide a powerful programming paradigm based on using non-determinism with traditional functional programming techniques. However functional logic languages typically require complicated runtime systems to handle the non-determinism. I present the basic scheme for the implementation of functional logic languages. It is based on graph rewriting and pull-tabbing and is simple to describe and implement and performs fairly well compared to other implementations.
Figure 4: The bubbling transformation on a graph. Notice that the system must find a dominator to perform the transformation.
Figure 5: The pull-tab transformation on a graph. Notice that each step is a local transformation, however the result is that the choice is duplicated.
Fig. 2. Simplified diagram of chemical perceptron’s reactions. Each node represents a family of species, solid lines are reactions, squares are reaction rates, dashed lines with ‘+’ sign are catalyses, and dashed lines with ‘−’ sign are inhibitions.