

## 72 Hours of Science

During the 72 hours between noon on April 4 and noon on April 7, 2016, postdocs from the Santa Fe Institute (SFI) will be conducting an experiment. This is both a description of that experiment's particulars and an open letter declaring our commitment to those particulars. It will also be included as a supplement to any eventual publication.

For most projects that we work on as postdocs, science moves slowly. Research takes months or years to evolve from early-stage ideas to coherent and crisp findings, with additional months of writing before submitting work for publication. During the 72 Hours of Science, we will actively challenge the notion that this is the only timescale for science by going from *idea* to *submitted arXiv post* in only 72 hours. Our goal is also to engage nearly the entire postdoc community at SFI with specialties including anthropology, pure mathematics, urban development, cultural evolution, physics, computer science, ecology, political science, and evolutionary biology. Thus a second basic aspect of this informal experiment is to test the limits of science not only in terms of pace but also multidisciplinaryity. We think it'll be interesting, challenging, and fun. The agreed upon rules are as follows:

### **Rule 1: Submit to the arXiv within 72 hours**

The minute the clock starts, at 12:00 noon MDT on April 4, 2016, we'll begin to choose a project to work on. Before the clock stops, at 12:00 noon MDT on April 7, 2016, we'll submit our written manuscript to the arXiv, along with a copy of this description which registers the informal 72h(S) experiment. During the intervening three days, we'll decide on a project, develop the project, divide tasks among the participating postdocs, and write up our findings. It should be noted that the arXiv post will not be a description or analysis of the informal experiment, but of the generated scientific project itself. This document, which you're reading now, is intended to catalog the process as a supplement to the scientific paper generated from the process.

### **Rule 2: Fresh ideas only**

Choosing a project will be key to the success of 72h(S), so in order to select from the most diverse set of ideas, any participant can propose a project idea to the group. However, in the spirit of a good challenge, only projects or ideas that are new to everyone are allowed—they cannot be discussed beforehand, nor can they be substantially developed by the presenter. In other words, as a group, we're starting from scratch with a fresh idea and then developing it together. Since we did not want to rule out ideas that were mentioned, or created, during an off-hand discussion or comment during a seminar we have the formal criterion that  $\frac{3}{4}$  of the group should not have heard the problem statement before, and we allowed each person to informally "bounce the idea off" one person not at SFI.

### **Rule 3: We're in this together**

It's a collaboration, not a competition. Over the course of three days, each participant will occupy multiple roles, from reading to writing, coding to reviewing, cooking to coffee-making. So, regardless of whose fresh idea is chosen, authorship will be *Santa Fe Institute Postdocs* for the arXiv submission, with an alphabetical list of authors as the first reference with a statement of uniformly equal credit.

Agreed upon by SFI Postdocs on April 4, 2016.

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