

# ICML'04 Reviewers Behavior Study

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## Abstract

Ever wonder whether reviewers submit their reviews on time?

*This note is purely for fun.*

ICML'04 reviewers submit their reviews online. A webpage lists the progress of every reviewer. For example, after a reviewer submits 3 out of 4 paper reviews assigned to him, his webpage entry is “75% (3 of 4)”. I wrote a script to download the webpage several times a day, starting from about two weeks before the review deadline, until author notifications were sent. The downloaded files were then parsed and resampled to generate a dataset  $C(i, t)$ , the percent of reviews reviewer  $i$  has submitted at time  $t$ .

How many reviewers completed their job before the review deadline? This is shown in Figure 1. In fact less than 70% of the reviewers met the deadline. The plot excludes area chairs. Notice the steep slope one day before the deadline.

The progress of individual reviewers is plotted in Figure 2. Each horizontal line is for a single reviewer, and is color coded from dark blue (zero percent completed) to dark red (one hundred percent). The order of the reviewers is random for anonymity. The white vertical line is the review deadline.

It is hard to see what is going on in Figure 2. Thus I perform a K-means clustering on the rows of  $C(i, t)$ , and group the reviewers by cluster. The number of clusters is set to 4. In Figure 3 now we see the groups are:

1. Tortoise. Slow start after the deadline.

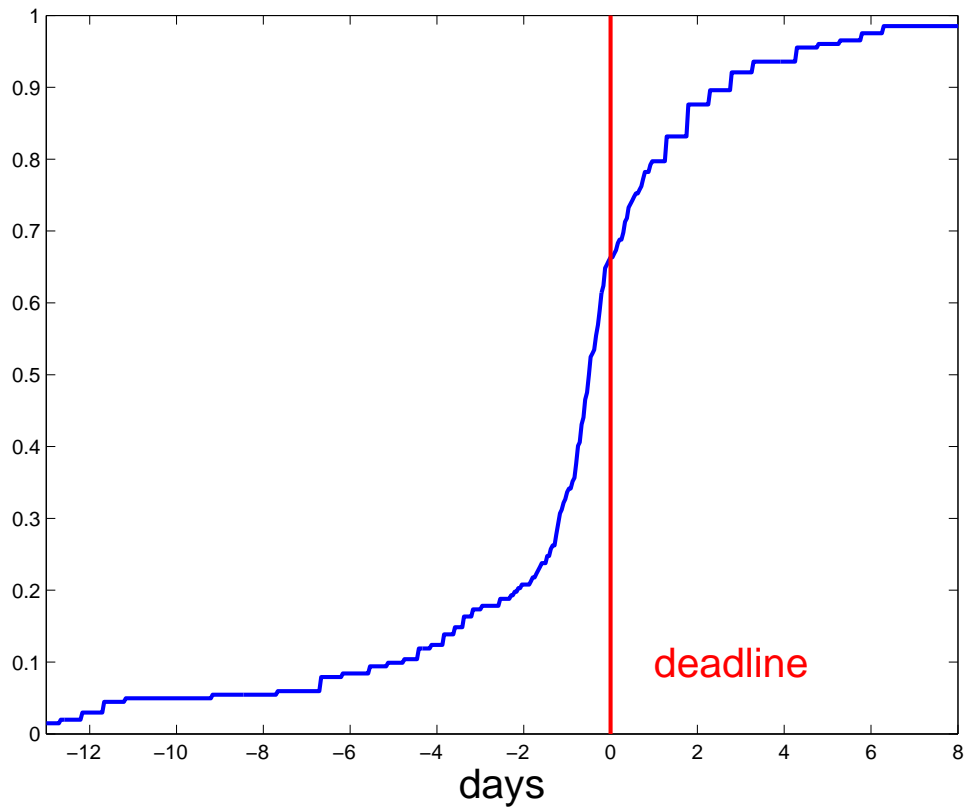


Figure 1: The fraction of reviewers (excluding area chairs) who completed their review, as time goes on. The red line is review deadline.

2. Hare. Finish way before deadline.
3. Just in time. Most of them submit all their reviews at once just before deadline.
4. Area chairs.

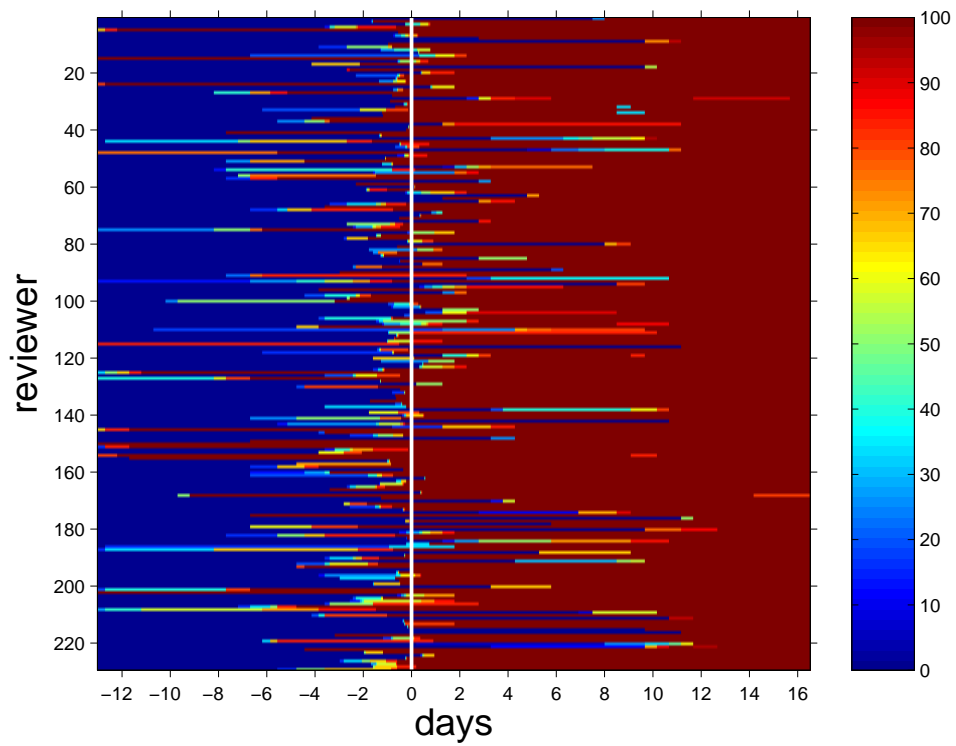


Figure 2: The progress of individual reviewers. The white vertical line is the review deadline.

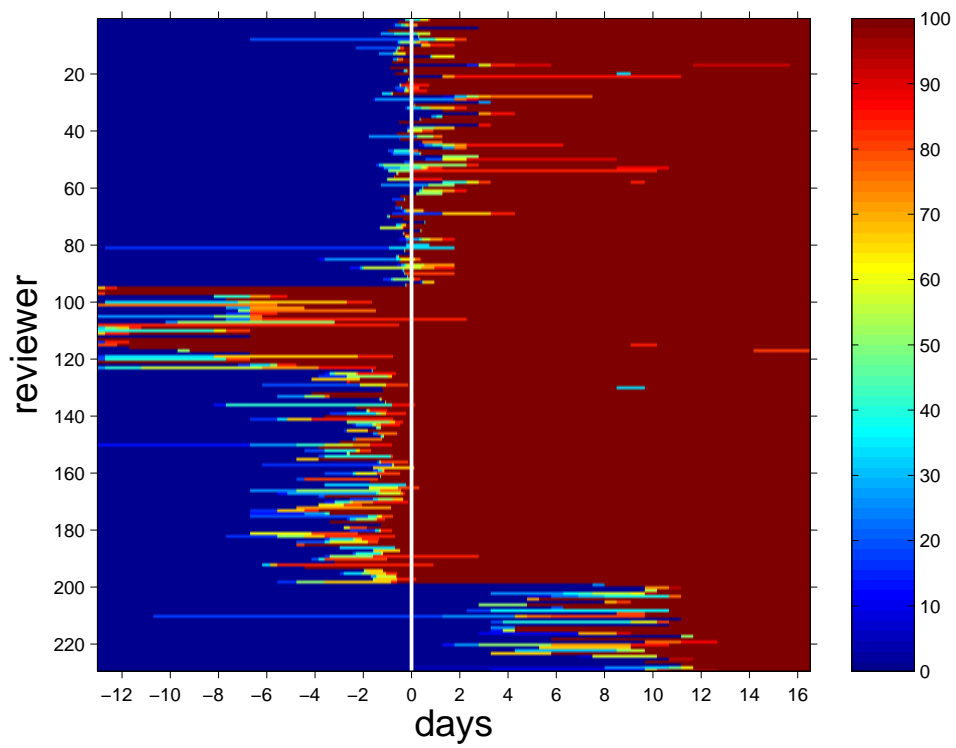


Figure 3: The progress of individual reviewers, clustered with K-means.