

EDITORIAL: ON ATTRACTING AND REVIEWING SUBMISSIONS

The International Young Physicists' Tournament has always been a meeting place for discoveries, creativity, and vibrant ideas.

This book touches on the highlights of the projects that were prepared for the IYPTs 2010 and 2011.

It is not for the first time that some of the bright IYPT projects have been selected to and published in a stand-alone international proceedings book. Such books have been previously published in 1998, 2005, and 2006.

In a next step, we are building further on what has made the IYPT proceedings successful: nearness and openness of the pre-university research reflecting the spirit and the level of the present day IYPTs.

For the first time we have implemented a full-scale professional review of all submissions to select the best and to rigorously check and improve those that are selected.

We opened our formal public call for papers on August 29, 2011.

36 manuscripts from 9 nations have been attracted, most of them in the short time interval before the final deadline of November 24.

The social dynamics of the submissions, quite typical for such projects as conference proceedings, is illustrated by Figure 1.

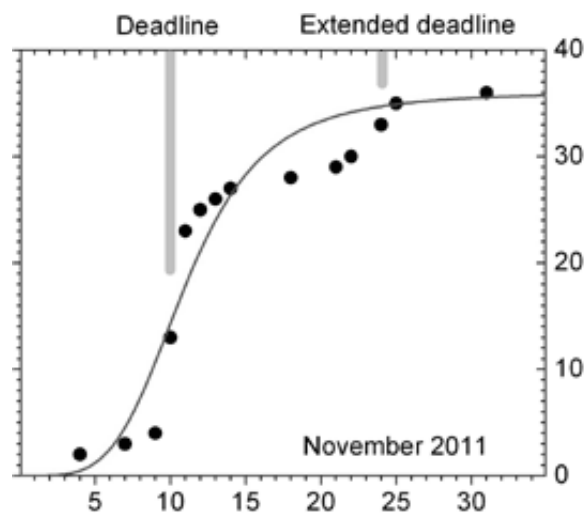


Figure 1. A logistic sigmoid function is used to fit the total number of received manuscripts as a function of time. The inflection point and the maximum daily submission rate coincide well with the first formal deadline.

The information hub for the project was set within the IYPT Archive: http://archive.iypt.org/iypt_book.

Here all submissions were indexed and all further details and status updates were collected. The original reviews, authors' letters to the reviewers, and online supplementary materials stay indexed online at this webpage.

We set a standard of 2 or 3 reviews per each submission, and the authors had to address and resolve the reviewers' concerns and revise the manuscripts before any further action or decision was taken.

The key aim of the review was to ensure that the manuscripts were appropriately scoped, written clearly, did not contain any visible mistakes or misconceptions, and stayed at a good level of depth and originality.

We focused on checking the consistency of results and conclusions. As a guideline, we assumed that the articles in the book should be usable by the intended audience (future participants, teachers, researchers in physics education, and people outside of the IYPT.)

We equally believed that each paper must present only independent experimental and theoretical results. All ideas or approaches that were not of own work, were requested to be referenced rigorously, without exception.

The written reviews took form of corrections or suggestions for students, questions, commentaries, evaluations, and recommendations.

Many reviewers requested re-writing or clarifying some parts of the text, questioned the conclusions and the data interpretation, and signaled issues that the authors should have promptly resolved.

Not all of the manuscripts passed through the reviewing stage, and we had 3 manuscripts rejected and 4 more manuscripts rejected but invited for possible re-submission.

The reviewing team comprised 25 reviewers from 12 nations. The total number of the first stage reviews was 91.

The performance of reviewers and authors, but also are own operational performance, may be illustrated by the distribution of waiting times to collect feedback and corrections (Figure 2.)

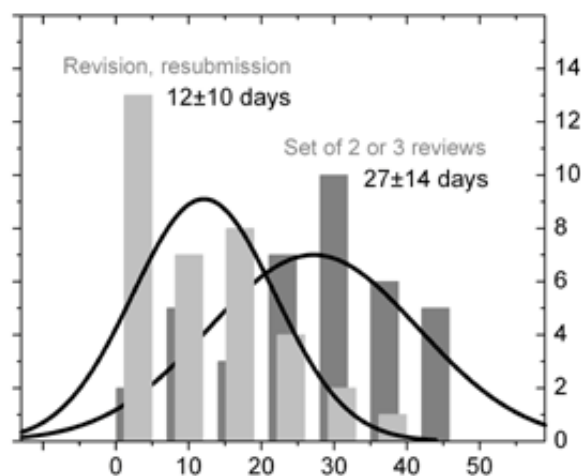


Figure 2. The histogram shows the distribution of waiting times to collect feedback from the reviewers and corrected manuscripts from the authors. In average, it was taking 27 ± 14 days to collect a

necessary and sufficient package of 2 or 3 reviews and deliver a decision. In a next step, it was taking 12 ± 10 days to receive a revised manuscript. Note that Gaussian fits are only rough approximations of the data, where a peak of *immediate revisions* is for example seen.

After collecting all revisions, re-submissions, and extra 7 reviews, the following final decision was delivered by January 17, 2012: 32 manuscripts selected and accepted, with the yielded acceptance ratio of 89% (Figure 3.)

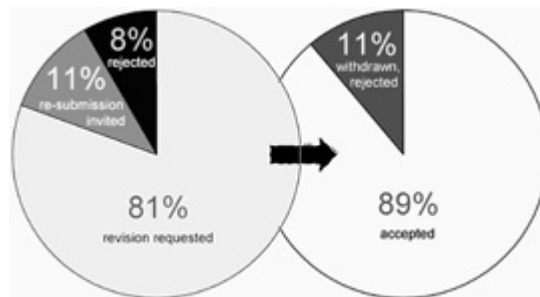


Figure 3. The pie chart shows the interim and final decisions for each of the 36 submitted manuscripts.

We offer a special thanks to authors who demonstrated a deep interest, self-determined motivation, and attention to detail as their papers underwent reviewing.

When looking through their feedback and informal commentaries, we may sum up that the review was a successful learning experience for each and every author. They learned to revise own narrative and data representation; satisfy the necessary standards of style, clarity and consistency; respond point by point to several pages of critical remarks; and meet tight deadlines.

We extend our deep and sincere gratitude to the reviewing community who handled their difficult and important mission with utmost speed and professionalism.

This book could not have become a reality without a commitment of Dr Dina Izadi who initiated the idea to publish the proceedings, and provided a warm and productive setting for the preparatory efforts.

We hope that the book will bring back good remembrances of these two IYPTs, and serve as a helpful asset to promote the IYPT to a broader readership.

With grateful thanks for the pleasure of cooperating on the project,

Ilya Martchenko

IYPT Archive