



Earth Orientation Parameters Prediction Comparison Campaign (EOP PCC)



Announcement of Termination in March 2008

Wien, 18.02.2008

Dear participants of the EOP PCC,

thanks a lot for your participation in the EOP PCC and let me briefly summarize past and present status of the campaign and our plans.

Goals and start of the campaign

The Earth Orientation Parameters Prediction Comparison Campaign (EOP PCC) which started in October 2005 has been a successful effort to determine the current state of the art in Earth Orientation Parameter (EOP) predictions. The main idea of this campaign was to compare the various methods, models, techniques and strategies that can be applied to EOP prediction. As you know, each submitted time series is treated by the same statistical methods and – what is different to many previous studies – the predictions have to be submitted *before* any EOP observations are taken in order to match the conditions under which predictions are made.

Categories and organizers

There are three categories of prediction (ultra short-term, short-term and medium-term). Participants were invited to submit prediction results for any of the EOP: the x_p , y_p pole coordinates, UT1-UTC differences between Earth rotation time and clock time, length of day (LOD), and dX , dY (or $d\psi$, $d\epsilon$) celestial pole offsets and indeed we have received predictions for each category and all five EOP. All results were compared and judged by the organizers at IGG, Vienna University of Technology in co-operation with Wiesław Kosek and his team, Space Research Centre (SRC), Polish Academy of Sciences and the IERS Rapid Service / Prediction Centre. The reference against which the predictions were compared is the IERS EOPC04 series. *In particular, I'd like to thank Dr. Maciej Kalarus at SRC who did, and is still doing, most of the work related to the EOP PCC. He really did a great job and without his skills and his strong efforts the campaign would not have been so successful.*

Presentation of results at international conferences

Partial results of this campaign were presented jointly at several international conferences such as at EGU General Assemblies (Vienna, 2-7 April 2006 and 16-20 April 2007), at the IAU XXVIth General Assembly (Prague, 14-25 August 2006), at the Journées 'Systèmes de référence spatio-temporels' (Paris, 17-19 September 2007) as well as at the AGU Fall Meeting 2007 (San Francisco, 10-14 December 2007).

Termination of the campaign in 2008

The organizers think that the campaign can be terminated now as we have obtained enough data to do a thorough statistical comparison and come to some conclusions. Thus, we propose **to finish with submissions at the end of February 2008**. Then we will have the possibility to get also the observed EOP data and prepare the full statistical results for ultra short-term and short-term predictions until April 2008. In fact, it is planned to give the final presentations about the EOP PCC at this year's EGU in Vienna (14-18 April 2008) with the following

presentations scheduled in Session G5 (oral sessions on Wednesday, April 16th 2008, poster session on Thursday, April 17th 2008):

Oral presentation, in which the results of the EOP PCC will be announced ('Award Ceremony'):

[EGU2008-A-00595](#)

Kalarus, M; Kosek, W; Schuh, H

Summary of the Earth Orientation Parameters Prediction Comparison Campaign

Poster presentation by the whole EOP PCC team:

[EGU2008-A-07644](#)

Schuh, H; Kosek, W; Kalarus, M; [The EOP PCC Team](#)

Earth Orientation Parameters Prediction Comparison Campaign – first summary

Presentation of final results in a peer-reviewed international journal

As you might remember we were also planning to publish a joint paper with all participants of the EOP PCC (including those participants who had to withdraw during the campaign or who entered later) presenting the final results of the campaign and we think it is time now to start the work on this publication. The paper should be finished until early summer 2008 and it is planned to submit it to Journal of Geodesy.

What is needed from you until the end of March 2008 (for EGU presentations)?

For the presentations to be given at EGU please send us as soon as possible but **not later than March 28th 2008** the following informations which go beyond what we have obtained so far:

- a short description of the input data (e.g. source, name, resolution,...);
- name of the algorithm (e.g. least squares fitting/extrapolation, autoregression, Kalman filter, etc...) (very short description);
- number of data points used to compute the predictions;
- platform, software and programming language (for practical purpose);
- important remarks that the participant thinks are worth to mention?

What is needed from you until the end of May 2008 (for the joint paper)?

For the joint paper please send us **until May 29th 2008** a description (1-2 pages) of the method that you applied which should consist of:

- a description of the algorithm with some implementation details. This description should give a general idea as well as some details about the data processing. It can also contain some basic equations but not the full mathematical background of your prediction method.
- information how the participant deals with different kind of predictions (are there any differences in algorithms when computing ultra short-term, short-term and medium-term predictions?);
- how did you calibrate/optimize the algorithm (empirically / based on theory)?
- references that you have used and which should be given in the paper;
- participants who used additional time series such as AAM and / or OAM should also include a proper explanation of those.

Thanks again to all of you who have contributed to the campaign. Now, let's bring it to a successful end including a nice publication.

Best regards

Harald Schuh
(Coordinator of the EOP PCC)

PS. Please, send all informations electronically to:

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