24 Sep 2015

VI International Time Scale Algorithms Symposium and Tutorials

10-11 September 2015

Preliminary Agenda of Symposium

10 September 2015 – Symposium

10:00 10:10 Opening

SESSION I - National time scale algorithms

10:10	**10:30**	Realization of the Swedish National Distributed Time Scale (Carsten Rieck, SP, Sweden)
10:30	**10:50**	Brazilian Atomic Time Scale TA(ONRJ) (Ricardo Josèe de Carvalho, ONRJ, Brazil)
10:50	**11:10**	Algorithms for UTC(NIM) realization (Yuan Gao, NIM, China)

11:10 - 11:30 ***Tea / coffee break***

11:30	**11:50**	Upgrading of UTC(NICT) (Yuko Hanado, NICT, Japan)
11:50	**12:10**	TA(SU) and UTC(SU) Maintenance in the Main Metrology Center of the State Service for Time and Frequency (Koshelyaevsky N., VNIIFTRI, Russia)
12:10	**12:30**	Steering UTC(TL) Toward The Cesium Clock Ensemble Time Scale of TL (Shinn Yan Lin, TL, Taiwan)
12:30	**12:50**	A UTC(IT) Steering Algorithm Based on an Atomic Clock Ensemble Scale (P. Tavella, INRIM, Italy)

12:50 - 14:10 ***Lunch***

SESSION II - Time scale with primary frequency standards

14:10	**14:30**	Realization of UTC(OP) based on LNE-SYRTE atomic fountains (Daniele Rovera, LNE-SYRTE, France)
14:30	**14:50**	Rapid evaluation of time scale using an optical clock (Tetsuya Ido, NICT, Japan)
14:50	**15:10**	UTC(IT) steering algorithm relying on the ITCsF2 Primary Frequency Standard measurements (G. Signorile, INRIM, Italy)
15:10	**15:30**	A timescale based on the world's fountain clocks (G. Petit, BIPM, France)

15:30 - 16:00 ***Tea / coffee break***

SESSION III - Clock estimation and space system

16:00	**16:40**	**Invited talk - Urs Hugentobler "Clock Corrections from GNSS"**
16:40	**17:00**	An efficient and configurable preprocessing algorithm for robust clock data analysis (I. Sesia, INRIM, Italy)
17:00	**17:20**	Robust Clock Ensemble for Time and Frequency Reference System (Qinghua Wang Orolia Switzerland SA (Spectratime), Switzerland)
17:20	**17:40**	Galileo System Time Steering by the Time Validation Facility (TVF) (Roldán Pedro, GMV, Spain)

18:15 ***Departure for Dinner***

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11 September 2015 – Symposium

SESSION IV – Pulsar time scales

09:40	**10:20**	**Invited talk – Bill Coles "Algorithms for Development of a Pulsar-based Time-scale"**

10:20 - 10:50 ***Tea / coffee break***

SESSION V - Anomalous behavior, correlation, missing data handling

10:50	**11:30**	**Invited Talk - Goran Peskir "Optimal Stopping"**
11:30	**11:50**	Detection of atomic clock frequency jumps with an optimal stopping method (C. Zucca, University of Torino, Italy)
11:50	**12.10**	Multi-detection of anomalies in precise clocks for space applications (L. Galleani, Politecnico di Torino, Italy)
12:10	**12:30**	Impact of correlations on the uncertainties of [UTC-UTC(k)] (Panfilo Gianna, BIPM, France)
12:30	**12:50**	An adaptive algorithm to estimate the Allan Variance from clock frequency data with gaps and dead times (I. Sesia, INRIM, Italy)

12:50 - 13:50 ***Lunch***

13:50	**14:10**	Optical clock comparison with broadband two-way satellite time and frequency transfer (Franziska Riedel, PTB, Germany)
14:10	**14:30**	Dead time and missing data: the impact on frequency estimate and uncertainty (Signorile Giovanna, INRIM, Italy)

SESSION VI - Kalman and Vondrak applications

14:30	**14:50**	Clock ensembling using Kalman filter -- implications of non-observability and causality (Marek Peca, Czech Technical University, Czech Republic)
14:50	**15:10**	An application of the Kalman Filter to UTC (F. Parisi, University of Torino/ BIPM, Italy)
15:10	**15:30**	Vondrak Smoothing and UTC Generation (Demetrios Matsakis, USNO, USA)

15:30 - 15:50 ***Tea / coffee break***

SESSION VI – NTP Algorithms

15:50	**16:30**	**Invited talk - Poul-Henning Kamp "Improved NTP Timekeeping"**
16:30	**16:50**	An Auto-Regressive Moving-Average Time Scale Algorithm (ARMA) for Synchronizing Networked Clocks (Judah Levine, NIST, USA)

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