

## Announcement and Call for Papers



## 1995 WORKSHOP ON SAMPLING THEORY & APPLICATIONS

September 20-22  
1995

Jurmala (Riga), LATVIA

### Contributions

Five copies of an extended abstract of no more than two pages (500-600 words) in English should be sent to this address:

Dr. Farokh Marvasti  
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Dept. of Electronics and Electrical  
Engineering  
King's College London  
Strand, London WC2R 2LS  
UK  
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Abstracts should clearly show the new contributions and relevance of the theme to the Workshop, following this structure:

0. Title and Authors address (E-mail/phone/fax)
1. State of the art
2. New contribution
3. Application or Simulation Results
4. References
5. Five Keywords

Proposals of invited sessions including a brief description of the topics and a list of prospective authors and titles should be sent to the Program Chair address.

### Deadlines and Key Dates

Submission of extended abstracts and proposal of invited sessions	<b>January 15, 1995</b>
Preliminary acceptance	March 15, 1995
Submission of final papers	May 31, 1995
Final acceptance	June 30, 1995

### Secretariat Address

SampTA'95 Secretariat  
14, Dzerbenes str.  
Riga, LV-1006  
LATVIA  
Tel: +371-2 55 83 40  
Fax: +371-8 82 82 11  
e-mail: gfricnov@edzi.lza.lv

### Location

The Workshop will be held at the Conference Centre of Latvian Academy of Sciences located in Jurmala, a pleasant seaside resort about 20 km from Riga. Most of the participants will live in the hotel located at the Centre.

### SampTA'95 Information Form

Please tick as appropriate:

I intend to:

- attend the Workshop  
 submit a paper

Provisional Title: \_\_\_\_\_

Name(s) of Author(s): \_\_\_\_\_

propose an invited session.

To be completed and returned to the  
SampTA'95 Workshop Secretariat:  
14, Dzerbenes str.  
Riga, LV-1006, Latvia

## Organizing and Technical Committee

General Chair I. Bilinskis (LV)  
Vice-General Chair G. Cain (UK)  
Program Chair F. Marvasti (UK)  
Members:

G. Adshead (UK)	M. A. Lagunas (E)
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A. J. E. M. Janssen (NL)	A. Zakhor (USA)

Finance	M. Eihe (LV)
Conference Secretariat	G. Fricnovichs (LV)
Conference Secretariat	I. Ilzina (LV)
Local arrangements	V. Saveljev (LV)

### Local organizers:

Institute of Electronics and Computer Science  
Signal Processing Institute, Ltd.

### Supported by:

University of Westminster (UK)

### Sponsored by:

European Association for Signal Processing  
(EURASIP)



### Scope of the Workshop

The theme of the Workshop is Theory and Applications of general Sampling procedures with emphasis on Nonuniform Sampling. The Workshop will bring together for the first time the people interested in the possibilities and problems of processing non-traditionally sampled signals and who are active in this field. While both unintentionally and deliberately irregularized nonuniform sampling schemes will both be considered, the Workshop will be focussed on the Nonuniform Sampling technique as the basis for emerging

Flexible Signal Processing technology prospective for alias-free digital processing of signals in extremely wide frequency ranges, extending far beyond the Nyquist limit.

Tutorials will be presented by invited speakers. The oral and poster presentation of technical papers will be run in several parallel sessions. Four-page papers will be published in the Workshop Proceedings prior to the event.

### Topics

Papers describing original research and development work are solicited on (but not limited to) the following topics:

#### Sampling Theory

- Analytical description. • Sampling point processes.
- Sampling jitter. • Random sampling. • Pseudorandom sampling. • Adequate signal representation. • Multirate sampling. • Adaptive sampling. • Simulation.

#### Nonuniformly Sampled Signal Processing

- Unbiased estimation conditions. • Alias suppression.
- Decomposition. • Alias-free spectral and sequential transforms. • Non-orthogonal transforms. • Wavelets.
- Alias-free filtering. • Alias-free waveform reconstruction.
- Signal recovery when sets of samples (pixels) are lost.
- High-resolution spectral analysis. • Data compression.
- Fractional-Sample Delay and Interpolation. • Sample Rate Conversion. • Simulation.

#### Nonuniformly Sampled Multidimensional Signal Processing

- Alias-free image encoding. • Image reconstruction.
- Alias-free array processing. • Complexity-reduced large aperture arrays. • Geophysical and seismic signal processing. • Data compression. • Simulation.

#### Applications

- Information Theory. • Error control. • High performance instrumentation. • ASIC based DSP preprocessing. • Transient recording. • Event-time ranging. • Laser-Doppler signal processing. • Lidar systems. • Control systems. • Robotic systems. • Communications. • Others.

#### VLSI design

- VLSI design methodology for Nonuniformly Sampled Signal Systems. • ASIC design. • High-level synthesis.

## SampTA '95 Information Form

To be completed and returned to the  
SampTA '95 Workshop Secretariat:

Name: (Dr./Prof.) (Mr./Mrs./Miss) (Block letters please)

Company/Organization:

Address:

State/Country

E-mail:

Fax:

Phone: