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ASILOMAR CONFERENCE ON
SIGNALS, SYSTEMS AND
COMPUTERS



November 4 - 7, 2007 Asilomar Hotel and Conference Grounds

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Signal Processing Society

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FORTY-FIRST ASILOMAR CONFERENCE ON SIGNALS, SYSTEMS & COMPUTERS

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Welcome from the General Chairman

Prof. Victor DeBrunner, Florida State University

It is beyond my belief that this is the 41st Annual Asilomar Conference on Signals, Systems, and Computers. It seems only yesterday I smelled the ocean and the pines here for the first time. This is the place where I made the contacts, both personal and professional, that have come to mean so much to me as I moved from student, to assistant professor, to associate professor, to professor, to department chair. This is the constant, the welcoming professional place, which nurtures great work in signal processing. This is the place where Delores Etter gave me a first opportunity, where Richard Duda talked to me about the great things that could happen if only I would just do them. I could listen to Stan White or Sam Stearns and think about what my future could be. I remember Dick Hamming and his jackets. There are so many personal memories of this place, and so many good people. And now I am a part of this place. What a privilege.

The Sydney Parker Memorial Lecture will be given by Sidney Burrus, the Maxfield and Oshman Emeritus Professor of Electrical Engineering at Rice University. I have the pleasure of knowing Sidney for many years – I think I still have some video of me with his lovely wife Mary Lee doing some aboriginal Australian dance. I can't wait to hear his talk about Connexions.

The conference student paper contest has taken a life of its own, and we welcome these new members to the lifelong group that provides the vitality to this Conference. I find it amazing, and sure sign of the future success of this meeting that there are 92 submissions for this contest. I hope that this Conference will always be open and welcome to graduate students and their work.

The success of this year's meeting is due to the efforts of Dr. Maïté Brandt-Pearce from the University of Virginia. She recruited outstanding TACs who in turn recruited outstanding session chairs, who then developed the outstanding program from each of you! She made my job as general chair enjoyable. I want to thank each of these TACs by name: Robert Heath, Earl E. Swartzlander, Jr., Elza Erkip, Dana Brooks, Geir Øien, Jerry D. Gibson, Roy Yates, Stella Batalama, and Hongbin Li. And I thank all of the session chairs and participants (though your names won't fit!). We had over 580 papers (with about 200 invited ones) to use to create the wonderful program for this year's meeting.

Finally, I want the participants to note that without the local support from people such as Sue Netzorg, Monique Fargues, Mike Matthews, Frank Kragh, and Murali Tummala this meeting would not happen. They provide countless hours of service to arrange the meeting locale and food, the proceedings, the announcements, and review contracts and sign checks – the basic stuff of the life of the Conference.

Enjoy Asilomar!

Victor DeBrunner, Florida State University, June 2007

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D. Adaptive Systems and Processing Stella Batalama

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E. Array Processing and Statistical Signal Processing

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F. Biomedical Signal and Image Processing

Dana Brooks
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G. Multi-rate and Digital Signal Processing

Maite Brandt-Pearce University of Virginia Charlottesville, VA Email: mb-p@virginia.edu

H. Architecture and Implementation

Earl E. Swartzlander, Jr.
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I. Speech, Video and Audio Processing

Jerry D. Gibson Dept. of Electrical and Computer Engineering 3431 South Hall, Suite H University of California, Santa Barbara Santa Barbara, CA 93106 Email: Gibson@mat.ucsb.edu

Deputy TAC for Tracks A, B, and C Robert W. Heath, Jr.

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Student Paper Contest Chair

Jim Schroeder Harris Corporation Melbourne, FL

2007 Asilomar Conference Session Schedule

Sunday Afternoon, November 4

2:00 - 7:00 PMRegistration - Main Lodge5:00 - 6:30 PMStudent Paper Contest - Merrill Hall7:00 - 9:00 PMWelcoming Reception - Merrill Hall

Monday Morning, November 5

7:30 - 9:00 AM Breakfast – Crocker Dining Hall

8:00 AM - 6:00 PM Registration

8:15 - 9:45 AM MA1a – Conference Opening and Plenary Session

9:45 - 10:15 AM Coffee Social

10:15 - 12:00 PM MORNING SESSIONS

MA1b Signal Separation

MA2b Genomic Signal Processing

MA3b Analysis of Large Scale Communications Systems

MA4b Challenges and Opportunities in MIMO Communications

MA5b Integrated Algorithm and Architecture Implementation

MA6b Adhoc Network Capacity MA7b Genomic Data Processing

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12:00 - 1:00 PM Lunch – Crocker Dining Hall

Monday Afternoon, November 5

1:30 - 5:10 PM AFTERNOON SESSIONS

MP1 MIMO Radars

MP2a Registration in Biomedical Imaging

MP2b Image and Video Coding I

MP3 Cross-Laver Optimization in Wireless Resource Allocation

MP4 Multi-User MIMO Communications I

MP5 Computer Arithmetic

MP6 System Theory for Sensor Networks

MP7 Adaptive Signal Processing Using Higher-Order Arrays

MP8a1 Cooperative Communications (Poster)

MP8a2 Precoding for MIMO (Poster)

MP8a3 Image and Video Coding and Processing (Poster)

MP8a4 Topics in Speech, Image, and Signal Processing and Coding (Poster)

MP8b1 Statistical Signal Processing (Poster)

MP8b2 Biomedical and Genomic Signal Processing (Poster)

Monday Evening, November 5

6:30 - 9:30 PM Conference Cocktail/Social – Merrill Hall

The Cocktail/Social takes the place of Monday's dinner. No charge for conference attendees or their

guest.

2007 Asilomar Conference Session Schedule (continued)

Tuesday Morning, November 6

7:30 - 9:00 AM Breakfast - Crocker Dining Hall

8:00 AM - 5:00 PM Registration

8:30 AM - 12:10 PM MORNING SESSIONS

TA1 Non-Gaussian and Nonlinear Methods in Statistical Signal Processing

TA2 Spatio-Temporal Processing in Biomedical Imaging

TA3 Recent Advances in Cognitive Radio

TA4 Cooperative Diversity

TA5 Signal Processing for Structural Health Monitoring

TA6 Network Information TheoryTA7 Image and Video Coding II

TA8a1 Architectures (Poster)

TA8a2 Modulation, Detection, and Error Control Coding (Poster)

TA8a3 Interference Handing in Wireless Communications (Poster)

TA8b1 Multirate and Digital Signal Processing (Poster)

TA8b2 Performance Bounds (Poster)

TA8b3 Selected Topics in Wireless Communications (Poster)

12:00 - 1:00 PM Lunch - Crocker Dining Hall

Tuesday Afternoon, November 6

1:30 - 5:10 PM AFTERNOON SESSIONS

TP1 Underwater Acoustical Array Signal Processing

TP2 Cellular Image Analysis

TP3 Ultra Wideband Communications

TP4a Estimation and Detection

TP4b Array Signal Processing

TP5 Low-Power Methods

TP6a Network Pricing

TP6b Relay Channels

TP7a Speech Coding, Processing and Transport

TP7b Plenoptic Signal Processing

TP8a1 Advances in MIMO Communications (Poster)

TP8a2 MIMO Communication over Frequency Selective Channels (Poster)

TP8a3 Adaptive Systems and Processing (Poster)

TP8b1 Multi-user MIMO Communications II (Poster)

TP8b2 OFDM and Multi-Carrier Communications (Poster)

TP8b3 Estimations, Synchronization, and Equalization (Poster)

Tuesday Evening, November 6

8:00 - 10:00 PM Bonfire at the fire pit next to Crocker Hall

2007 Asilomar Conference Session Schedule (continued)

Wednesday Morning, November 7

7:30 - 9:00 AM Breakfast – Crocker Dining Hall

8:00 AM - 12:00 PM Registration - Copyright Forms must be turned in

before the registration closes at 12:00 noon.

8:30 AM - 12:10 PM MORNING SESSIONS WA1a Source Localization and Imaging WA1b Adaptive Radar Signal Processing

WA2a New Optical Techniques for Cancer Detection and Therapy WA2b Signal Processing Techniques in Advanced MR Imaging

WA3a Wireless Optical Communications

WA3b Iterative Receiver Processing on Communication Systems

WA4 Feedback in MIMO Systems

WA5a Programmable and Reconfigurable Architectures

WA5b SOC Architectures WA6a Radar Signal Processing

WA6b Signal Processing in Cognitive Radio Networks

WA7a Speech and Audio Coding

WA7b Wavelet and Filter Bank Methods for Image and Video Processing

WA8a1 Wireless Networks (Poster) WA8a2 Sensor Networks (Poster)

WA8a3 Radar and Array Signal Processing (Poster)

12:00 - 1:00 PM Lunch – Meal tickets may be purchased at registration

desk. This meal is not included in the registration.

Student Paper Contest

Merril Hall - Sunday, November 4, 2007 Judging starts at 6:30_{PM}

(Listed in paper number order)

"Knowledge-Aided Space-Time Adaptive Processing" **Xumin Zhu**, Jian Li, Petre Stoica, and Joseph R. Guerci

"A Deterministic Method for Haplotype Inference"

Kuo-ching Liang and Xiadong Wang, Columbia University

"Rate Estimation Using Forward Adaptive Quantization: H.264 Fast Intra Mode Selection at High Data Rates"

Koohyar Minoo and Truong Q. Nguyen, University of California, San Diego

"Matrix Decomposition Architecture for MIMO Systems: Design and Implementation Trade-Offs"

Christoph Studer, Patrick Blösch, Peter Friedli, and Andreas Burg, ETH Zurich

"Multicarrier Broadcast and Unicast Hybrid Systems"

Hongxiang Li, Bin Liu, and Hui Liu, University of Washington

"Instruction Set Extensions for AES Processing on a Multithreaded Software Defined Radio Platform"

Christipher Jenkins, Suman Mamidi, Michael Schulte, University of Wisconsin-Madison, and John Glossmer, Sandbridge Technologies

"Real-Time MIMO Discrete Multitone Transceiver Testbed"

Alex Olson, Aditya Chopra, Yousof Mortazavi, Ian Wong, and Brian

Evans, University of Texas at Austin

2007 Asilomar Conference Session Schedule

Coffee breaks will be at 10:10 AM and 3:10 PM, except on Monday morning when refreshments will be served outside Merrill Hall from 9:45-10:15 AM.

Monday, November 5

CONFERENCE OPENING AND PLENARY SESSION 8:30 – 9:45 AM

1. Welcome from the General Chairperson:

Prof. Victor E. DeBrunner

Florida State University

2. Session MA1a

Distinguished Lecture for the 2007 Asilomar Conference

Prof. C. Sidney Burrus

Rice University

Connexions: A New Technology for Education

Abstract

We educators and researchers in information technology are quick to use the latest theories and techniques in our research but slow to use them in our teaching. Over the past ten or twenty years, the digital computer, internet connectivity, high capacity disc storage, and graphics display along with the powerful software systems for word processing, searching, hypertext linking have begun to challenge the traditional book. This talk describes a new system called Connexions (http:// cnx.org/) which uses XML encoding of content with an open access copyright system by Creative Commons to create a radically new information publication system. Information or "content" is organized in modules which are written in an extendable markup language, XML, and put in a publicly available repository. The Creative Commons copyright license allows free access, authoring, revision, printing, and even commercial use. The Connexions repository now has over 4000 modules, 220 collections called courses or books, and users from 157 countries. This system (or something

like it) is going to completely change the way we write, read, teach, and learn.

Biography

C. Sidney Burrus received his PhD from Stanford University in 1965 and has been on the faculty at Rice University since then. He was a visiting professor at the University of Erlangen in Germany in 1975 and again in 1980 and was a visiting professor at MIT in 1990. He received a Humboldt Award, a Fulbright Fellowship, and various research awards from the IEEE over the years. He is a Fellow of the IEEE. He received teaching awards from Rice in 1975 etc. was department chair for ten years, and was the Dean of Engineering at Rice for seven years. Currently, he is the Maxfield and Oshman Emeritus Professor of Electrical Engineering. He has published 5 books and over 200 research articles, mostly in digital signal processing, and has been involved with the use of technology for education which resulted in the Connexions Project which started in 1999.

Program of 2007
Asilomar Conference
on
Signals, Systems, and Computers

Technical Program Chairman Maite Brandt-Pearce University of Virginia

Session	MA1b Signal Separation	
MA1b-1	Non-cancellation Multistage Kurtosis	10:15
	Maximization with Prewhitening for B	lind Source
	Separation	
	Xiang Chen, Tsinghua University; Chong-Y	ung Chi,
	Chon-Wa Wong, National Tsing Hua Unive	rsity; Shidong
	Zhou, Yan Yao, Tsinghua University	

MA1b-2 Separating composite signals in multi-probe 10:40 AM dynamic biomedical imaging

Li Chen, Yue Wang, Virginia Tech; Chong-Yung Chi,

National Tsing Hua University; Zsolt Szabo, Johns

Hopkins University; Peter L. Choyke, National Institutes

of Health

MA1b-3 Blind Separation and Equalization Using 11:05 AM Novel Hill-Climbing Optimization

Dongxin Xu, Infoture Inc.; Hsiao-Chun Wu, Louisiana

State University

MA1b-4 An Improved L1-Norm Algorithm for 11:30 AM Underdetermined Blind Source Separation Using Sparse Representation
Shuzhong Bai, Ju Liu, Guoxia Sun, Shandong University

MA1b-5 Variable Tap Length Convolutive Blind 11:55 AM Source Separation
Clive Cheong Took, Saeid Sanei, Cardiff University

Session MA2b Genomic Signal Processing

Chair: P.P. Vaidyanathan & Byung-Jun Yoon

MA2b-1 Robust Intervention in Probabilistic Boolean 10:15 AM Networks Ranadip Pal, Aniruddha Datta, Edward Dougherty, Texas A&M University

MA2b-2 Probabilistic Methods for Improving 10:40 AM Efficiency of RNA Secondary Structure Prediction Across Multiple Sequences

Gaurav Sharma, A. Ozgun Harmanci, David Mathews,
University of Rochester

MA2b-3 Framework for Identification of Common 11:05 AM
Variations in Multiple Samples of Human Genome
Associated with Behavioral Abnormalities Using
Signal Processing Technique and Statistics
Abdullah Alqallaf, Ahmed Tewfik, University of Minnesota

MA2b-4 Fast Annotation of Noncoding RNA Families 11:30 AM with Pseudoknots

Byung-Jun Yoon, P. P. Vaidyanathan, California Institute of Technology

MA2b-5 A deterministic sequential Monte Carlo 11:55 AM method for haplotype inference Kuo-ching Liang, Xiaodong Wang, Columbia University

Session MA3b Analysis of Large Scale Communication Systems

Chair: Ralf R. Müller

AM

MA3b-1	Asymptotic Capacity of Orthogonal 10:15 AN				
	Multi-Level Amplify-and-Forward Relay Networks				
	Shu-Ping Yeh, Stanford University; Olivier Leveque,				
	Ecole Polytechnique Federale de Lausanne; John Cioffi,				
	Stanford University				

MA3b-2 Asymptotic Spectral Efficiency Analysis of the DS/CDMA Amplify and Forward Relay Channel

David Gregoratti, Xavier Mestre, CTTC

MA3b-3 On the capacity of asynchronous CDMA 11:05 AM systems

Laura Cottatellucci, Institute Eurecom; Mérouane
Debbah, Supelec; Ralf Müller, Norwegian University of Science and Technology (NTNU)

MA3b-4 Free deconvolution for MIMO channel 11:30 AM capacity estimation

Øyvind Ryan, University of Oslo; Mérouane Debbah,
Supelec

MA3b-5 Second order statistics of the eigenvalue 11:55 AM spectrum of truncated large unitary matrices

Aris Moustakas, University of Athens; Mérouane Debbah,
Supelec

Session MA4b Challenges and Opportunities in MIMO Communication

Chair: Angel Lozano

MA4b-1 Network MIMO: Overcoming Intercell 10:15 AM Interference in Indoor Wireless Systems

Gerard Foschini, Howard Huang, Angel Lozano,
Laurence Mailaender, Reinaldo Valenzuela, Sivarama
Valenzuela, Bell Labs (Alcatel-Lucent)

MA4b-2 Decision Feedback Based Transceiver 10:40 AM
Optimization for MIMO Inter-Symbol Interference
Channels
Yi Jiang, NextWave Broadband; Mahesh Varanasi,
University of Colorado, Boulder; Daniel Palomar, Hong
Kong University of Science and Technology

MA4b-3 Capacity Scaling of Multiuser MIMO with 11:05 AM Limited Feedback in a Multicell Environment Lars Thiele, Fraunhofer Institute for Telecommunications - Heinrich-Hertz-Institut; Malte Schellmann, Technical University of Berlin; Wolfgang Zirwas, Nokia Siemens Networks GmbH & Co. KG; Volker Jungnickel, Technical University of Berlin

MA4b-4 Partial CSI designs for distributed space-time 11:30 AM codes in wireless relay networks

Mari Kobayashi, Supérieure d'Electricité (Supélec);

Xavier Mestre, Centre Tecnològic de Telecomunicacions de Catalunya

MA4b-5	MIMO Precoding and Power Control based	11:55 AM	Session I	MA7b	Genomic Data Processing		
	on 1-bit Feedback Filippo Merli, University of Modena and Reggio Em	ilia;	Chair: Xiaa	Chair: Xiadong Wang			
Session N	Xiaodong Wang, Columbia University; Giorgio Vite University of Modena and Reggio Emilia VIA5b Integrated Algorithm and Architecture Implementatio		MA7b-1	Protein In Theory, an Novel Con	g Literature-Based Mammalian teraction and Signaling Networks, C nd Multivariate Experiments to Pred mponents and Pathways an, Mount Sinai School of Medicine		
Chair: Bria	n Evans		MA7b-2	S-system	model estimation using stochastic	10:40 AM	
MA5b-1	Jointly Optimized Software Radios for Low Power 4G Cellular Systems	10:15 AM		Faming Lie	ation Monte Carlo ang, Jianhua Huang, Texas A&M Univer	sity	
	Brian Kelley, Freescale Wireless Messaging Advance Technology	ed	MA7b-3	genomic i	g single-cell single-molecule nformation: New methods for new c		
MA5b-2	Digital Video Broadcast Transceiver Deployment to Xilinx FPGAs using LabVIEW	10:40 AM		Michael Samoilov, Adam Arkin, University of California, Berkeley / Lawrence Berkeley National Laboratory			
N 1 51 2	John Ammerman, Newton Petersen, Hugo A. Andrac National Instruments Corporation	le,	MA7b-4	Information	Bases: An analysis of Genetic on Paradigms May, Sandia National Laboratories	11:30 AM	
MA5b-3	Model-based mapping for nonrigid image registration Yashwanth Hemaraj, University of Maryland; Maina Sen, Cisco Systems, Inc.; William Plishker, University Maryland; Raj Shekhar, University of Maryland Medical Raj Shekhar, University of Maryland Raj Shekhar, University of Maryland Medical Raj Shekhar, University of Maryland Medical Raj Shekhar, University of Maryland Raj Shekhar, Univers	ty of	MA7b-5	Signal pro microarra <i>Haris Vika</i>	ocessing for real-time DNA		
MA5b-4	Shuvra Bhattacharyya, University of Maryland Real-Time MIMO Discrete Multitone	11:30 AM	Session I	MP1	MIMO Radars		
WIA30-4	Transceiver Testbed		Chair: Jian Li & Petre Stoica				
	Alex Olson, Aditya Chopra, Yousof Mortazavi, Ian V Brian Evans, University of Texas at Austin	Vong,	MP1-1		Estimation and Number Detection Radar Targets	1:30 PM	
Session N	MA6b Adhoc Network Capacity Andrews & Martin Haenggi			Luzhou Xu,	, University of Florida; Petre Stoica, Upp Jian Li, University of Florida	osala	
MA6b-1	Degrees of Freedom for Wireless Ad-hoc Networks Syed Jafar, University of California, Irvine	10:15 AM	MP1-2	Transmit 1	ovariance Matrix Optimization for Beamforming in MIMO Radars ttomäki, Visa Koivunen, Helsinki Univers	1:55 PM	
MA6b-2	Space-time trade-offs in MIMO communication	10:40 AM	MP1-3	Space rev	ersal methods for MIMO radars prikian, Ben-Gurion University of the Neg	2:20 PM	
	Massimo Franceschetti, University of California, Sa Diego; Anna Martini, Andrea Massa, University of T		MP1-4	On Data-A	Adaptive Waveform Design for adar	2:45 PM	
MA6b-3	Propagation in Multihop ALOHA Networks	11:05 AM		Cruz	Friedlander, University of California, Sa	nta	
	Radha Krishna Ganti, Martin Haenggi, University o Notre Dame	f		BREAK		3:10 PM	
MA6b-4	Energy-Limited vs. Interference-Limited Ad Hoc Network Capacity Nihar Jindal, University of Minnesota; Steven Webe Drexel University; Jeffrey Andrews, University of Te	r,	MP1-5	Frequency	Method for MIMO Radar y Hopping Codes y Chen, P. P. Vaidyanathan, California In 1989	3:30 PM	
MA6b-5	at Austin Optimal Throughput-Delay Tradeoff in Mammalian Ad Hoc Networks	11:55 AM	MP1-6		in radar networks esco Sammartino, Christoper Baker, Uni ndon	3:55 PM iversity	
	Rajiv Agarwal, John Cioffi, Stanford University		MP1-7	Power Eff	ne MIMO STAP with Improved ficiency a, Jeffrey Krolik, Duke University	4:20 PM	

MP1-8	Optimiza	IIMO Radar: System And Waveform ation iss, Keith Forsythe, MIT Lincoln Laboratory		MP3-2	Spectrum Allocation, Power Control, Routing, and Congestion Control for Wireless Networks with Duplexing Constraints	
Session	MP2a	Registration in Biomedical In	naging	MP3-3	Yufang Xi, Edmund Yeh, Yale University Channel Aware Distributed Scheduling for 2:20 PM	
Chair: Gus	stavo Rohd	e		WII 3-3	Ad-Hoc Communications with Capture	
MP2a-1		ational Functional Anatomy Michael Miller, Johns Hopkins University	1:30 PM		Weiyan Ge, Junshan Zhang, Arizona State University; Jeffrey E. Wieselthier, Naval Research Laboratory	
MP2a-2	*				Joint Scheduling and Resource Allocation in 2:45 P OFDM Systems: Algorithms and Performance for the Uplink Jianwei Huang, Chinese University of Hong Kong; Vijay Subramanian, Hamilton Institute; Randall Berry, Northwestern University; Rajeev Agrawal, Motorola	
MP2a-3	Image R	g and Reconstruction for Biomedical egistration	2:20 PM		BREAK 3:10 PM	
	Healy Jr.,	Rohde, Carnegie Mellon University; Dennis University of Maryland; Akram Aldroubi, It University		MP3-5	Utility Maximization in Multiple Access 3:30 PM Channels. Ali ParandehGheibi, Asuman Ozdaglar, Muriel Medard,	
MP2a-4	_	Brain Tumor from MR Imagery	2:45 PM		Atilla Eryilmaz, Massachusetts Institute of Technology	
G	of Alberta	Ray, Baidya Saha, Matthew Brown, Univers	ity	MP3-6	Cross-Layer Optimized Iterative Receivers 3:55 PM for OFDM ARQ with Carrier Frequency Offset Thomas Ketseoglou, California State Polytechnic	
Session		Image and Video Coding I		MP3-7	University, Pomona Fairness vs. Efficiency: Comparison of Game 4:20 PM	
MP2b-1	low-com coding Min Li, U Chandras	er motion vector interpolation for plexity and very low bitrate scalable viniversity of California, San Diego; Preethiekhar, Gokce Dane, Qualcomm Inc; Truong University of California, San Diego		MI 5-7	Theoretic Criteria for OFDMA Scheduling Andreas Ibing, Fraunhofer Institute for Telecommunications - Heinrich-Hertz-Institut; Holger Boche, Technical University of Berlin / Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut; Fraunhofer German-Sino Lab for Mobile Communications	
MP2b-2	Quantiza High Da	Minoo, Truong Nguyen, University of Califo		MP3-8	Persistent Resource Allocation in OFDMA 4:45 PM Networks for Real-Time and Non-Real Time Traffic Vinay Majjigi, Rajiv Agarwal, John Cioffi, Stanford University	
MP2b-3		otive Block Size Phase Correlation	4:20 PM	Session I	MP4 Multi-User MIMO Communications I	
		Estimation Using Smart Multireference Selection in Frequency Domain		Chair: Niha	ar Jindal	
	Yasser Isr	nail, Mohamed Elgamel, Magdy Bayoumi, T r Advanced Computer Studies (CACS)	The	MP4-1	On the Required Accuracy of Transmitter Channel State Information in Multiple Antenna 1:30 PM	
MP2b-4	Multi-St	Description Image Coding Based on age Vector Quantization dersson, Mikael Skoglund, Royal Institute of (KTH)			Broadcast Channels Shlomo Shamai (Shitz), Technion; Giuseppe Caire, University of Southern California; Nihar Jindal, University of Minnesota	
Session	,	Cross-Layer Optimization in		MP4-2	Uplink SDMA with Limited Feedback 1:55 PM	
		Wireless Resource Allocation			Kaibin Huang, Jeffrey Andrews, Robert Heath, University of Texas at Austin	
Chair: Rar	ıdall Berry			MP4-3	Rank-Independent Codebook Design from a 2:20 PM	
MP3-1	On estim	nation and resource allocation in networks di, University of California, San Diego	1:30 PM		Quaternary Alphabet Bishwarup Mondal, Motorola; Timothy Thomas, Motorola Labs; Mark Harrison	

MP4-4	Antenna Combining and Codebook Design for MIMO Broadcast Channels with Limited Feedback	2:45 PM	MP5-7	Square I	g the ARM VFP-11 Divide and Root Architecture gess, Icera Inc.	4:20 PM
	Matteo Trivellato, University of Padova; Howard Hu Federico Boccardi, Alcatel-Lucent		MP5-8	Using H Floating	alf-Adders to Speed Up -Point Critical Paths	4:45 PM
	BREAK	3:10 PM	G		tz, Chris N. Hinds, ARM Inc.	
MP4-5	On optimization of multiuser systems using	3:30 PM	Session N		System Theory for Sensor N	etworks
	interference calculus Gerhard Wunder, Thomas Michel, Heinrich-Hertz-In.	stitut	Chair: Veni	u Veerevo	ılli	
	Berlin	orenee.	MP6-1		tion-Driven Sensor Planning with	1:30 PM
MP4-6	Jointly Optimized Downlink Multiuser MIMO OFDM Precoding System Kyeong Jin Kim, Nokia Inc.; Jianzhong Zhang, Samsi	3:55 PM		John W. I	opology Knowledge Fisher III, Jason L. Williams, Massachusett. of Technology	8
	Telecom America		MP6-2		g and Reconstruction of Polyhedra	1:55 PM
MP4-7	Efficient MSE Balancing for the Multi-User	4:20 PM			d in Noise Thao, Sergio Servetto, Cornell University	
MD4 9	MIMO Downlink Raphael Hunger, Michael Joham, Wolfgang Utschick Technische Universitaet Muenchen		MP6-3	Separati for Sens	on Theorems and Partial Orderings or Network Problems Gastpar, University of California, Berkeley	2:20 PM
MP4-8	Robust MAC MIMO Transceiver Design with Partial CSIT and CSIR Xi Zhang, Royal Institute of Technology (KTH); Daniel Palomar, Hong Kong University of Science	4:43 FW	MP6-4	The Nos	the of a Bloodhound: Target Chasing by a Static Sensor Network cosut, Lang Tong, Cornell University	2:45 PM
	and Technology; Björn Ottersten, Royal Institute of Technology (KTH)			BREAK		3:10 PM
Session Chair Mi	MP5 Computer Arithmetic		MP6-5	Observa		3:30 PM
	los Ercegovac				nnan Unnikrishnan, Venugopal Veeravalli, y of Illinois at Urbana-Champaign	
MP5-1	Floating-Point Fused Multiply-Add Architectures Eric Quinnell, AMD; Earl Swartzlander, University of Texas at Austin; Carl Lemonds, AMD	1:30 PM	MP6-6	Consens Least-So Sensor N	hus-Based Distributed Recursive quares Estimation in Ad Hoc Wireless Networks	3:55 PM
MP5-2	On Digit-by-Digit Methods for Computing Certain Functions	1:55 PM		Universit	chizas, Gonzalo Mateos, Georgios Giannak y of Minnesota	
	Milos D. Ercegovac, University of California, Los An	~	MP6-7		Field Estimation with Asynchronous Networks	4:20 PM
MP5-3	Computing Integer Powers in Floating-Point Arithmetic Peter Kornerup, Southern Danish University; Vincen	2:20 PM		Sriram N	arayanan, Douglas L. Jones, University of t Urbana-Champaign	
	Lefevre, Jean-Michel Muller, ENS Lyon	•	MP6-8		Progress on a 60-GHz Imaging Sensor	4:45 PM
MP5-4	Performance Impact when Using Denormalized Numbers in Basic Floating-point Operations Alex Tenca, Kyung-Nam Han, David Tran, Synopsys,				Seo, Bharath Ananthasubramaniam, Upama Mark J. W. Rodwell, University of Californ	
	BREAK	3:10 PM	Session N	MP7	Adaptive Signal Processing V	Jsing
1505.5					Higher-Order Arrays	
MP5-5	A Binary Integer Decimal-based Multiplier for Decimal Floating Point Arithmetic	3:30 PM	Chair: Mar	tin Haard	^t t	
	Charles Tsen, University of Wisconsin; Sonya Gonzai Navarro, University of Malaga; Michael Schulte, University of Wisconsin	les	MP7-1	DS-CDN	omponent Model Based Blind MA Receivers Jion, Lieven De Lathauwer, ETIS CNRS UM	1:30 PM
MP5-6	A Residue Approach of the Finite Fields Arithmetics Jean-Claude Bajard, University of Montpellier	3:55 PM		8051	, , , , , , , , , , , , , , , , , ,	

MP7-2	Canonical Decomposition of scalp EEG in epileptic seizure localisation Maarten De Vos, Katholieke Universiteit Leuven; Lie De Lathauwer, CNRS-ENSEA-ETIS; Sabine Van Huf		MP8a2-2	Precodin André de	ime Spreading MIMO System Using Canonical Ig Tensor Model Almeida, Gérard Favier, 13S Laboratory; João Ita, Wireless Telecom Research Group (GTEL)
MP7-3	Wim Van Paesschen, Katholieke Universiteit Leuven Enhanced Model Order Estimation Using Higher-Order Arrays Joao Paulo C. L. da Costa, Martin Haardt, Florian	2:20 PM	MP8a2-3	Whitenin Lingyang	Design for V-BLAST Schemes Based on Pre- ng Detector Song, Are Hjørungnes, Pradeepa Yahampath, Bhatnagar, University of Oslo
MP7-4	Roemer, Giovanni Del Galdo, Ilmenau University of Technology Joint Diagonalization of Third Order Complex Symmetric Tensors and Application t	2:45 PM o	MP8a2-4	Correlate	g of Differential OSTBC in Arbitrarily ed MIMO Channels Bhatnagar, Are Hjørungnes, Lingyang Song, y of Oslo
	Blind Separation of Non-Circular Sources Eric Moreau, LSEET, University of Toulon	2.10 DM	Session I	MP8a3	Image and Video Coding and Processing
	BREAK	3:10 PM	MD0-2 1	A	6
MP7-5	Set-Theoretic Reduced-Rank Adaptive Filtering by Adaptive Projected Subgradient Method	3:30 PM	MP8a3-1	videos <i>Wonjun K</i>	ic region of interest determination in music Cim, Changick Kim, Information and cations University
	Masahiro Yukawa, RIKEN; Rodrigo de Lamare, University of York; Isao Yamada, Tokyo Institute of Technology		MP8a3-2	Ilkoo Ahn	Color Customization of Soccer Videos , Changick Kim, Information and cations University
MP7-6	Efficient Algorithms for Computing the Capon and APES Filters Erik Gudmundson, Uppsala University; Andreas Jakobsson, Karlstad University	3:55 PM	MP8a3-3	image se Arnaud V	e thresholding for motion detection in a CMOS insor erdant, CEA; Antoine Dupret, Hervé Mathias, é Paris Sud; Patrick Villard, CEA
MP7-7	Fast RLS algorithm using dichotomous coordinate descent iterations Yuriy V. Zakharov, University of York; George White QinetiQ; Jie Liu, University of York	4:20 PM	MP8a3-4	Statistica complex Michael I	al modeling and ML parameter estimation of SAR imagery Davis, Patrick Bidigare, General Dynamics -
MP7-8	Long angle-of-arrival estimation in the presence of specular and diffuse multipath Simon Haykin, McMaster University	4:45 PM	MP8a3-5	Improving with Deg	ng Robustness of Image Quality Measurement gradation Classification and Machine Learning Falk, Yingchun Guo, Wai-Yip (Geoffrey) Chan,
Session	MP8a1 Cooperative Communication	ıs			University
MP8a1-1	Auction-Theoretic Partner Selection in Coopera Diversity Wireless Networks Amitav Mukherjee, Hyuck Kwon, Wichita State Unive		MP8a3-6	represen Jean Jacq	lementation of a l_infinity-l_1 penalized sparse tations algorithm: Applications in image coding. ques Fuchs, IRISA / Univ. de Rennes 1; Christine t, IRISA / INRIA
MP8a1-2	Multi-Cell Cooperative Transmission Younsun Kim, Hui Liu, University of Washington		MP8a3-7	Contour	let based Image Denoising Using Improved ding Neural Network
MP8a1-3	Joint Beamforming and Power Adaptation for M Broadcasting Relays with QoS Constraints			Sayed Mo	shammad Ebrahim Sahraeian, Farrokh Marvasti, iversity of Technology
MP8a1-4	Rui Zhang, Chin Choy Chai, Ying Chang Liang, Instifor Infocomm Research Dynamic Resource Allocation For The Broadba		MP8a3-8	Hao Cher	ng noisy images with noise n, Pramod Varshney, Syracuse University; James NHM Technologies LLC
	Channel Kagan Bakanoglu, Deniz Gunduz, Elza Erkip, Polyte	•	MP8a3-9		arison of Some State of the Art Image Denoising
	University			Hae Jong	Seo, Priyam Chatterjee, Hiroyuki Takeda,
	MP8a2 Precoding for MIMO			Peyman N	Ailanfar, University of California, Santa Cruz
MP8a2-1	Pre-Coding for Rapidly Time Varying MIMO Communication Channels				

Meriam Rezk, Benjamin Friedlander, University of

California, Santa Cruz

Session MP8a4 Topics in Speech, Image, and Signal Processing and Coding

- MP8a4-1 Perceptual Pre-weighting and Post-inverse weighting for Speech Coding
 Niranjan Shetty, Jerry Gibson, University of California,
 Santa Barbara
- MP8a4-2 Epsilon entropy of piecewise polynomial functions and tree partitioning algorithm

 Arian Maleki, Stanford University
- MP8a4-3 Flexible Quantization of Audio and Speech Based on the Autoregressive Model

 Alexey Ozerov, W. Bastiaan Kleijn, Royal Institute of Technology (KTH)
- MP8a4-4 Wiener filter for isotropic signal fields Raman Arora, University of Wisconsin-Madison; Harish Parthasarathy, Netaji Subhas Institute of Technology
- MP8a4-5 Using Phoneme Segmentation in Conjunction with Missing Feature Approaches for Noise Robust Speech Recognition

 Arash Mohammadi, Farshad Almasganj, Aboozar Taherkhani, Farnoosh Naderkhani, Amirkabir University of Technology
- MP8a4-6 Unaligned training for voice conversion based on a localnonlinear principal component analysis approach Behrooz Makki, Seyed Ali Seyedsalehi, Mona Noori Hosseini, Amirkabir University of Technology; Nasser Sadati, Sharif University of Technology
- MP8a4-7 Rate-adaptive turbo-syndrome scheme for Slepian-Wolf Coding

 Aline Roumy, Khaled Lajnef, Christine Guillemot, IRISA-INRIA
- MP8a4-8 Biorthogonal Matrix Dirty Paper Code for Information Hiding

 Xin Xu, Martin Tomlinson, Marcel Ambroze, Mohammed

 Ahmed, University of Plymouth
- MP8a4-9 The Cyclic Matching Pursuit and Its Application to Audio Modeling and Coding

 Mads Christensen, Søren Holdt Jensen, Aalborg

 University
- MP8a4-10 Constrained Monotone Regression and Outlier Detection for Searching Occlusion Objects

 Dong SIk Kim, Hankuk University of Foreign Studies;

 Kiryung Lee, University of Illinois at Urbana-Champaign
- MP8a4-11 Optimal Bit Layering for Scalable Audio Compression Using Objective Audio Quality Metrics Srivatsan Kandadai, Charles Creusere, New Mexico State University
- MP8a4-12 Feature Frame Watermarking

 Hedley Morris, Imad Muhi El-Ddin, Claremont Graduate

 University

MP8a4-13 View Morphing using Linear Prediction of Sub-Space Features

Abhijit Mahalanobis, Lockheed Martin, MFC; Philip
Berkowitz, Mubarak Shah, University of Central Florida;
Richard Sims, U.S. Army

Session MP8b1 Statistical Signal Processing

- MP8b1-1 Low-Complexity Carrier Frequency Offset Estimation For Frequency-Selective Channels Jeffrey D. Klein, ATK Mission Research
- MP8b1-2 Correlation coefficients for complex random vectors Peter J. Schreier, University of Newcastle
- MP8b1-3 Stochastic Incremental Gradient Descent for Estimation in Sensor Networks

 S.Ram Srinivasan, Angelia Nedich, Venugopal Veeravalli,
 University of Illinois at Urbana-Champaign
- MP8b1-4 Estimating the mode of a phase distribution Barry Quinn, Macquarie University
- MP8b1-5 An Efficient Dimensional Reduction of the Blocking Matrix for the Multistage Wiener Filter Junichiro Suzuki, Yoshikazu Shoji, Masahiro Tanabe, Toshiba Corporation; Hiroyoshi Yamada, Yoshio Yamaguchi, Niigata University
- MP8b1-6 Signal estimation based on mutual information maximization

 Gustavo Rohde, Carnegie Mellon University; Jonathan Nichols, Frank Bucholtz, Joseph V. Michalowicz, Naval Research Laboratory
- MP8b1-7 Moment-Based SNR Estimation for SIMO Wireless Communication Systems Using Arbitrary QAM Alex Stéphenne, Ericsson Canada Inc.; Faouzi Bellili, Sofiène Affes, INRS-ÉMT
- MP8b1-8 A Distributed Approach to Beamforming in a Wireless Sensor Network Nikolaos Papalexidis, Owens Walker, Charalampos Gkionis, Murali Tummala, John McEachen, Naval Postgraduate School
- MP8b1-9 Model Distribution For Distributed Kalman Filters: A Graph Theoretic Approach
 Usman Khan, José M. F. Moura, Carnegie Mellon
 University
- MP8b1-10 Blind MIMO channel identification using cumulant tensor decomposition

 Carlos Estêvão Fernandes, Gérard Favier, University of Nice Sophia Antipolis; João Cesar Mota, Federal University of Ceará
- MP8b1-11 Further Results on Performance Analysis for Compressive Sensing Using Expander Graphs Weiyu Xu, Babak Hassibi, California Institute of Technology
- MP8b1-12 Blind Source Separation with a Time-Varying Mixing Matrix Marcus DeYoung, Brian Evans, University of Texas at Austin

- MP8b1-13 Fundamental Frequency Estimation using the Shift-Invariance Property

 Mads Christensen, Aalborg University; Andreas

 Jakobsson, Karlstad University; Søren Holdt Jensen,

 Aalborg University
- MP8b1-14 Efficient estimation of the parameters in a sum of complex sinusoids in complex autoregressive noise *Barry Quinn, Macquarie University*
- MP8b1-15 A Modulation Code-Based Blind Receiver for Memoryless Multiuser Volterra Channels Carlos Alexandre Rolim Fernandes, Gérard Favier, 13S Laboratory; João Cesar Moura Mota, GTEL Laboratory
- MP8b1-16 Distributed Iteratively Quantized Kalman Filtering for Wireless Sensor Networks

 Eric J. Msechu, Alejandro Ribeiro, Stergios I. Roumeliotis, Georgios Giannakis. University of Minnesota
- MP8b1-17 Sinusoidal Order Estimation using the Subspace Orthogonality and Shift-Invariance Properties Mads Christensen, Aalborg University; Andreas Jakobsson, Karlstad University; Søren Holdt Jensen, Aalborg University
- MP8b1-18 Phase Noise Mitigation in Channel Parameter Estimation for TDM Switched MIMO Channel Sounding Attaphongse Taparugssanagorn, Centre for Wireless Communications / University of Oulu; Xuefeng Yin, Aalborg university; Juha Ylitalo, Elektrobit; Bernard Fleury, Aalborg university
- MP8b1-19 Separation of One-dimensional Waves a Stochastic Systems Approach Peter Nauclér, Torsten Söderström, Uppsala University
- MP8b1-20 Tracking of MIMO Propagation Parameters under Spatio-Temporal Scattering Model Jussi Salmi, Andreas Richter, Visa Koivunen, Helsinki University of Technology
- MP8b1-21 Propagator Method and Triangular Factorization for Source Bearing Estimation
 Nizar Tayem, Mort Naraghi-Pour, Louisiana State
 University
- MP8b1-22 Efficient Line Search Method for Riemannian Optimization under Unitary Matrix Constraint Traian Abrudan, Jan Eriksson, Visa Koivunen, Helsinki University of Technology
- MP8b1-23 Distributed Consensus Algorithms in Sensor Networks With Communication Channel Noise Soummya Kar, José M. F. Moura, Carnegie Mellon University
- MP8b1-24 On Side-Informed Coding of Noisy Sensor Observations Chao Yu, Gaurav Sharma, University of Rochester
- MP8b1-25 Blind Separation of In-Building Acoustic Signals for Urban Sensing Using Distributed Sensors

 Mohamed Sahmoudi, Moeness Amin, Yimin Zhang,
 Villanova University

MP8b1-26 Fundamental limit of sample eigenvalue based detection of signals in colored noise using relatively few samples Raj Rao Nadakuditi, Massachusetts Institute of Technology; Jack Silverstein, North Carolina State University

Session MP8b2 Biomedical and Genomic Signal Processing

- MP8b2-1 On recovery of sparse signals in compressed DNA microarrays

 Haris Vikalo, Farzad Parvaresh, Babak Hassibi,
 California Institute of Technology
- MP8b2-2 Nonlinear Signal Processing for Voice Disorder Detection by Using Modified GP Algorithm and Surrogate Data Analysis

 Aboozar Taherkhani, Seyyed Ali Seyyedsalehi, Arash Mohammadi, Mohammad Hasan Moradi, Amirkabir University of Technology
- MP8b2-3 Feature-Based Classification of Surface EMG Signal for a Multifunctional Myoelectric Hand Daryoosh Bineshian, Amirkabir University of Technology; Mohammad Reza Bineshian, Tehran University of Medical Sciences; Seyed Mohammad Ebrahim Mousavi, University of Social Welfare and Rehabilitation Sciences; Mohammad Hasan Moradi, Amirkabir University of Technology
- MP8b2-4 3D Spectrum Analysis of DNA Sequence: Application to C elegans Genome

 Afef Elloumi Oueslati, ENIT; Zied Lachiri, Insat;

 Noureddine Ellouze, ENIT

Session TA1 Non-Gaussian and Nonlinear Methods in Statistical Signal Processing

Chair: Pramod K. Varshney

- TA1-1 Noise Enhanced Signal Detection and 8:30 AM Estimation

 Hao Chen, Pramod Varshney, Syracuse University; James Michels, JHM Technologies
- TA1-2 Weak Signal Estimation in Unknown Chaotic 8:55 AM Clutter using Coupled Synchronization Ajeesh P. Kurian, Henry Leung, University of Calgary
- TA1-3 Performance Analysis of the NAMF 9:20 AM
 Test in Heterogeneous Non-Gaussian Radar Clutter
 Scenarios
 Muralidhar Rangaswamy, Freeman Lin, Air Force
 Research Laboratory
- TA1-4 A new approach to cost-reference particle 9:45 AM filtering

 Petar M. Djuric, Zejie Zhang, Monica F. Bugallo, Stony

Brook University

BREAK 10:10 AM TA2-7 Surface ECG reconstruction from intracardiac 11:20 AM EGM: a PCA-vectocardiogarm method TA1-5 Joint state monitoring and fault detection 10:30 AM Amar Kachenoura, Anissa Bourguiba, Fabienne Porée, using distributed particle filtering Alfredo Hernandez, Guy Carrault, INSERM, U642, Oi Cheng, Oklahoma State University; Pramod Varshney, Rennes Syracuse University Session TA3 10:55 AM

TA1-6 Particle Filter with Efficient Importance Sampling and Mode Tracking (PF-EIS-MT) and its Application to Landmark Shape Tracking Namrata Vaswani, Samarjit Das, Iowa State University

A Bayesian Framework for Abundance TA1-7 11:20 AM Estimation in Hyperspectral Cubes using Markov Random Fields Todd Moon, Jacob Gunther, Matthew Stites, Utah State University; Gustavious Williams, Brigham Young University

TA1-8 A robust detector for impulsive noise 11:45 AM environment Tonu Trump, Tallinn Technical University

Session TA2 **Spatio-Temporal Processing in Biomedical Imaging**

Chair: Yongyi Yang

BREAK

TA2-1 Murine Spatiotemporal Cardiac Segmentation 8:30 AM Andrew Gilliam, Scott T. Acton, University of Virginia

TA2-2 Multimodal Imaging of Myocardial Infarction 8:55 AM in Mice Brent A. French, Frederick H. Epstein, John A. Hossack, Stuart S. Berr, Christopher M. Kramer, University of

TA2-3 An AM-FM model for Motion Estimation in 9:20 AM Atherosclerotic Plaque Videos Victor Murray, Sergio E. Murillo, Marios S. Pattichis, University of New Mexico: Christos P. Loizou. Intercollege; Costantinos S Pattichis, Efthyvoulos Kyriacou, University of Cyprus; Andrew Nicolaides, University of Cyprus / Vascular Screening and Diagnostic Center

Spatio-temporal approaches to inverse TA2-4 9:45 AM electrocardiography Dana Brooks, Andrew Keely, Northeastern University: Alireza Ghodrati, Draeger Medical; Gilead Tadmor, Northeastern University: Rob MacLeod, University of Utah

TA2-5 Reconstruction of gated cardiac SPECT using 10:30 AM DFT basis Yongyi Yang, Xiaofeng Niu, Mingwu Jin, Illinois Institute of Technology

10:10 AM

TA2-6 Non-Iterative MAP Reconstruction for 10:55 AM Non-Cartesian MRI Acquisition Sequences Hasib Siddiqui, Charles Bouman, Thomas Talavage, Purdue University

Recent Advances in Cognitive Radio

Chair: Erik G. Larsson

TA3-1 Spectrum Opportunity Detection: How Good 8:30 AM Is Listen-Before-Talk? Oing Zhao, University of California, Davis

TA3-2 Censoring for Collaborative Spectrum 8:55 AM Sensing in Cognitive Radios Jarmo Lunden, Visa Koivunen, Helsinki University of Technology; Anu Huttunen, Nokia Research Center; H. Vincent Poor, Princeton University

TA3-3 Sensor-Network-Aided Cognitive Radio: On 9:20 AM the Optimal Receiver for Estimate-and-Forward Protocols applied to the Relay Channel Ragnar Thobaben, Erik G. Larsson, Royal Institute of Technology (KTH)

TA3-4 Cognitive radio Research and Implementation 9:45 AM Challenges Aawatif Menouni Hayar, Eurecom Institute **BREAK** 10:10 AM

TA3-5 Stability analysis of a cognitive multiple 10:30 AM access channel with primary OoS constraints Jonathan Gambini, New Jersey Institute of Technology / Politecnico di Milano: Osvaldo Simeone, Yeheskel Bar-Ness, New Jersey Institute of Technology; Umberto Spagnolini, Politecnico di Milano

TA3-6 Distributed Transmit Power Allocation for 10:55 AM Relay-Assisted Cognitive-Radio Systems Jan Mietzner, Lutz Lampe, Robert Schober, University of British Columbia

TA3-7 A price based dynamic spectrum allocation 11:20 AM Joydeep Acharya, Roy Yates, WINLAB, Rutgers University

Session TA4 **Cooperative Diversity**

Chair: J. Nicholas Laneman

On Achievable Rates for Interference Relay TA4-1 8:30 AM Channel with Interference Cancellation Onur Sahin, Elza Erkip, Polytechnic University

TA4-2 Feedback-induced Cooperation 8:55 AM Debashis Dash, Ashutosh Sabharwal, Rice University

TA4-3 DMT achieving Distributed Space Time 9:20 AM Codes for the MIMO Multiple Access Channel Jean-Claude Belfiore, Maya Badr, Sheng Yang, ENST; Ghaya Rekaya-Ben Othman, ENST Paris

TA4-4	Cooperative Multiple A Interference-Limited V Ozgur Oyman, Intel; Fen	Vireless Networks	9:45 AM	TA5-7	Damage	active Reasoning Approach for Fuzzy Recognition Using Wavelet Energy and Reda Taha, Department of Civil Engine	
	BREAK		10:10 AM	Session 7	TA6	Network Information Theo	ry
TA4-5	Cooperative Transmiss	sion of Correlated	10:30 AM	Chair: Ayli	in Yener		
T. 1.6		ao Wang, Polytechnic Univ		TA6-1	On the o	duality of MIMO MAC and BC with	8:30 AM
TA4-6	Distributed Decoding in Communications Marian Karkooti, Joseph	in Cooperative R. Cavallaro, Rice Univer	10:55 AM		Irvine	Gomadam, Syed Jafar, University of Calif	
TA4-7	Distributed Multiuser with Heterogenous Re Celal Esli, Armin Wittneb	Cooperative Network lay Clusters	11:20 AM	TA6-2	On dependence balance bounds for two-way 8:: channels Ravi Tandon, Sennur Ulukus, University of Maryland		
TA4-8	Energy Efficient Relay Cooperative Wireless Jie Yang, Donald Brown,	ring Games in Fransmission Systems Worcester Polytechnic Ins		TA6-3	Extende Relays Birsen St	aling of the Broadcast Capacity of ed Wireless Networks with Cooperativity of the Wireless Networks with Cooperativity of the Wireless Networks with Cooperativity of the Wireless Networks Networ	
Session	TA5 Signal Pro Health M	ocessing for Struct onitoring	ural	TA6-4		ia, Berkeley y of a class of MIMO Cognitive	9:45 AM
	onia Papandreou-Suppa					ridharan, Sriram Vishwanath, University	of Texas
TA5-1	Signal Processing Issu Health Monitoring	es Related to Structural	8:30 AM		BREAK	ζ.	10:10 AM
	Mark Derriso, Air Force Olson, University of Days	Research Laboratory; Stev ton Research Institute; Jose DeSimio, ATK Mission Sy	e A.	TA6-5	Channe		10:30 AM
TA5-2	Applications of Signal Structural Health Mon		8:55 AM		Ali ParandehGheibi, Asuman Ozdaglar, Muriel Medard Atilla Eryilmaz, Massachusetts Institute of Technology		
	Charles R. Farrar, Matth Alamos National Laborat	ew T. Bement, Gyuhae Par ory	k, Los	TA6-6	Rate Equivocation Region of a Class of Relay 10 Channels with Orthogonal Components Xiang He, Aylin Yener, Pennsylvania State University		
TA5-3	Wenfan Zhou, Debejyo C	e-Frequency Feature nous Hidden Markov M hakraborty, Narayan Kovv pappola, Douglas Cochran	ali,	TA6-7			11:20 AM mitter
TA5-4	Optimal Sub-band Bea Frequency Masking fo	umforming with r Localized Detection o	9:45 AM f	TA6-8	Informa	ap Channel With Two-Sided State ttion Biao Chen, Syracuse University	11:45 AM
	Damage in Structural I Alessio Medda, Victor De			Session 7	TA7	Image and Video Coding II	[
	University BREAK		10:10 AM	Chair: Mic	hael Mare	cellin & Ali Bilgin	
TA5-5	Time-Frequency Based	d Feature Extraction Fault Diagnosis in Elect	10:30 AM	TA7-1		y of Compressing Encrypted Sources kimoski, K. P. Subbalakshmi, Stevens Insti- 1889	8:30 AM tute of
	Drives	idi, Elias Strangas, Michig		TA7-2	Channel 2-D Tin	I Coding for Scalable Multimedia in a ne-Frequency Block of an OFDM Sys Chan, Verizon Wireless; Pamela Cosman,	
TA5-6	of In-Flight Rotorcraft	ıte University; Ashok Sriva				e Milstein, University of California, San D	iego

TA7-3	Distance quantization method for fast nearest neighbor search computations with application motion estimation	9:20 AM as to
	Hye-Yeon Cheong, Antonio Ortega, University of So California	puthern
TA7-4	802.11 WLAN Video Multicast Based on Temporal Scalable H.264	9:45 AM
	Zhengye Liu, Polytechnic University; Zhenyu Wu, H Liu, Mingquan Wu, Alan Stein, THOMSON	lang
	BREAK	10:10 AM
TA7-5	JPEG2000: Quality Scalability and Windows of Interest Transmission Joan Serra-Sagrista, Francesc Auli-Llinas, University Autonoma Barcelona	
TA7-6	Multiple description image coding using regions of interest Marcus Nystrom, Lund University; Jerry Gibson, University of California, Santa Barbara; John B. Anderson, Lund University	10:55 AM
TA7-7	Multistage Lattice Vector Quantization for Hyperspectral Image Compression Ying Liu, William Pearlman, Rensselaer Polytechnic Institute	11:20 AM
TA7-8	Rate Distortion Optimized Vector SPIHT for Wavelet Image Coding Yongqing Liang, Scott Budge, Utah State University	
Session T	A8a1 Architectures	
Chair: Grah	nam Jullien	
TA8a1-1	Application-Specific Instruction Set Processor Implementation of List Sphere Detector Juho Antikainen, University of Oulu; Perttu Salmela Tampere University of Technology; Olli Silvén, Mar Juntti, University of Oulu; Jarmo Takala, Tampere University of Technology; Markus Myllylä, University Oulu	ı, kku
TA8a1-2	Distributed Phased Arrays With Wireless Bear David Jenn, Yong Loke, Mathew Tong, Eng Choon I Robert Broadston, Naval Postgraduate School	
TA8a1-3	A Handheld Texel Camera for Acquiring Near Instantaneous 3D Images Brandon Boldt, Scott Budge, Utah State University	-
TA8a1-4	Efficient Mutliplierless Polyphase FIR Filter b New Distributed Arithmetic Architecture Jose Tecpanecatl-Xihuitl, Ruth Aguilar-Ponce, Mag Bayoumi, University of Louisiana at Lafayette	
TA8a1-5	Instruction Set Extensions for AES Processing Multithreaded Software Defined Radio Platfor Christipher Jenkins, Suman Mamidi, Michael Schult University of Wisconsin-Madison; John Glossner, Sandbridge Technologies	m

- TA8a1-6 Combined radix-10 and radix-16 division unit

 Tomas Lang, University of California, Irvine; Alberto

 Nannarelli, Technical university of Denmark
- TA8a1-7 A Comparative Analysis of Data-Driven Architectural Techniques for Low-Power Array Multipliers

 Vasily Moshnyaga, Fukuoka University
- TA8a1-8 Iterative Radix-8 Multiplier Structure Based on a Novel Real-time CSD Recoding

 Yunhua Wang, University of Oklahoma; Linda DeBrunner,
 Florida State University; Joseph Havlicek, Dayong Zhou,
 University of Oklahoma
- TA8a1-9 A solution for memory collision in semi-parallel FPGAbased LDPC decoder design Radivoje Zarubica, Stephen Wilson, University of Virginia
- TA8a1-10 Hardware implementation of an Echo-Canceller for DVB-T On-Channel Repeaters

 Paolo Altamura, Gian Carlo Cardarilli, University of Rome; Andrea Del Re, Skytechnology S.r.l.; Marco Re, University of Rome
- TA8a1-11 High Throughput Sphere Decoding Using Staggered Decoding Schedule

 Pankaj Bhagawat, Texas A&M University; Chunjie Duan,

 Mitsubishi Electric Research Lab-Cambridge; Gwan

 Choi, Texas A&M University
- TA8a1-12 On Performance and Complexity of Sphere Decoding

 Chester Park, Samsung Advanced Institute of Technology;

 Sin-Chong Park, Information and Communications

 University
- TA8a1-13 An algorithm for factoring very high degree polynomials with random coeficients

 C. Sidney Burrus, James Fox, Gary Sitton, Sven Treitel,
 Rice University
- TA8a1-14 Design of Low-Pass Tunable Complex Heterodyne Filters
 Michael Soderstrand, Univesity of California

Session TA8a2 Modulation, Detection, and Error Control Coding

- TA8a2-1 Analytical Bit Error Rate Calculation for BICM(-ID)
 Assuming Imperfect CSI
 Susanne Godtmann, I-Wei Lai, RWTH Aachen University;
 Tzi-Dar Chiueh, National Taiwan University; Gerd
 Ascheid, Heinrich Meyr, RWTH Aachen University
- TA8a2-2 Hyper Phase Shift Keying (HPSK) Modulation James Caldwell, Murali Tummala, Naval Post-Graduate School
- TA8a2-3 Fast Near-Optimal Noncoherent Sequence Detection for Block Transmission over Doubly Dispersive Channels Sungjun Hwang, Philip Schniter, The Ohio State University

TA8a2-4	Data-Dependent Superimposed Training for Noncoherent Channels Jingnong Yang, Stanford University; Douglas B. Williams, Georgia Institute of Technology; John Cioffi, Stanford
TA8a2-5	University Space-Time Serial Concatenated Turbo Coded
171002 5	Modulation Daniel Liu, Michael Fitz, University of California, Los Angeles
TA8a2-6	Expanding Window Fountain Codes for Unequal Error Protection Dino Sejdinovic, University of Bristol; Dejan Vukobratovic, University of Novi Sad; Angela Doufexi, University of Bristol; Vojin Senk, University of Novi Sad; Robert J. Piechocki, University of Bristol
TA8a2-7	Analog Source-Channel Codes Based on Orthogonal Polynomials Niklas Wernersson, Mikael Skoglund, Royal Institute of Technology (KTH); Tor Ramstad, Norwegian University of Science and Technology (NTNU)
TA8a2-8	Space-Time Coding versus Repetition Coding for Free- Space Optical Communication Majid Safari, Murat Uysal, University of Waterloo
TA8a2-9	Architecture and Algorithm for a Stochastic Soft-output MIMO Detector Kiarash Amiri, Predrag Radosavljevic, Joseph R. Cavallaro, Rice University
Session 7	FA8a3 Interference Handling in Wireless
	Communications
TA8a3-1	Interference Suppression in Wireless Cellular Networks through Picocells Yifan Liang, Stanford University; Reinaldo Valenzuela, Gerard Foschini, Dmitry Chizhik, Bell Labs (Alcatel-Lucent); Andrea Goldsmith, Stanford University
TA8a3-2	Interference Avoidance With Limited Feedback Dimitrie Popescu, Sirisha Koduri, Old Dominion University
TA8a3-3	Extrinsic Information Transfer in Cellular MC-CDMA for Inter-Cell Interference Cancellation Simon Plass, Stephan Sand, German Aerospace Center (DLR)
TA8a3-4	Low-Complexity Variable Step-Size Mechanism for Code-Constrained Constant Modulus Stochastic Gradient Algorithms applied to CDMA Interference Suppression Yunlong Cai, Rodrigo de Lamare, University of York
TA8a3-5	Gradient Descent Interference Avoidance for Uplink

CDMA Systems with Multipath

University

Dimitrie Popescu, Danda Rawat, Old Dominion

- TA8a3-6 The Simple Near-Optimal Pairing Scheme of Superposition Coding in Downlink DS-CDMA Multipath Channel
 Seungyeon Eom, Janghoon Yang, Dong Ku Kim, Yonsei University
- TA8a3-7 An Ultra Wideband Transmitted Reference Scheme Gaining from Intersymbol Interference Florian Troesch, Armin Wittneben, ETH Zurich
- TA8a3-8 Joint Adaptive Modulation, Diversity Combining, and Power Control for Downlink Transmission in Two-cell Wireless Networks

 Anders Gjendemsjo, Norwegian University of Science and Technology (NTNU); Hong-Chuan Yang, University of Victoria; Geir Egil Oien, Norwegian University of Science and Technology (NTNU); Mohamed-Slim Alouini, Texas A&M University at Qatar

Session TA8b1 Multirate and Digital Signal Processing

- TA8b1-1 A Generalized Lapped Transform with Unequal Length Filters Based on First-Order Linear-Phase Filter Banks Taichi Yoshida, Yuichi Tanaka, Masaaki Ikehara, Keio University
- TA8b1-2 Design and Implementation of Discrete-Time Filters for Efficient Rate-Conversion Systems

 Thomas Baran, Alan Oppenheim, Massachusetts Institute of Technology
- TA8b1-3 Frequency domain properties of locally stationary improper second order stochastic processes Patrik Wahlberg, Peter J. Schreier, University of Newcastle
- TA8b1-4 On the Design of Sparse Half-Band Like FIR Filters
 Oscar Gustafsson, Linköping University; Linda
 DeBrunner, Victor DeBrunner, Florida State University;
 Håkan Johansson, Linköping University
- TA8b1-5 Sampling Based on Local Bandwidth

 Dennis Wei, Alan Oppenheim, Massachusetts Institute of
 Technology
- TA8b1-6 Signal Adapted Filter Bank Design Using Markov Parameters
 Peter Vouras, Trac Tran, Johns Hopkins University
- TA8b1-7 A Simple Proof of the Alternation Theorem
 P. P. Vaidyanathan, California Institute of Technology;
 Truong Nguyen, University of California, San Diego
- TA8b1-8 Three-dimensional cone FIR filters design using the McClellan transform

 Guergana Mollova, Wolfgang Mecklenbräuker, Vienna
 University of Technology
- TA8b1-9 Design of FIR LS Hilbert transformers through fullband differentiators

 Guergana Mollova, Vienna University of Technology

- TA8b1-10 Signal Segmentation and Dark Energy in Sparse Atomic Approximations

 Bob L. Sturm, John J. Shynk, University of California,
 Santa Barbara; Laurent Daudet, Universite Pierre et
 Marie Curie (Paris 6)
- TA8b1-11 Reconstruction Convergence of an Impulse-doublet Sampled Random Processes Jim Schroeder, Harris Corporation; Muralidhar Rangaswamy, Air Force Research Laboratory; Bob Kubichek, University of Wyoming
- TA8b1-12 A Novel Spectral Estimation Method By Using Periodic Nonuniform Sampling Dongdong Qu, Andrzej Tarczynski, University of Westminster
- TA8b1-13 Implementation Considerations and Performance Comparison of Variable Bandwidth FIR Filter and Phase Equalized IIR Filter fredric harris, San Diego State University
- TA8b1-14 Spectrum analysis at the output of a nonlinear power amplifier with multicarrier signals

 Emmanuel Cottais, Yide Wang, Bruno Feuvrie, IREENA
- TA8b1-15 Implementing Recursive Filters with Large Ratio of Sample Rate to Bandwidth fredric harris, San Diego State University; Wade Lowdermilk, BAE systems
- TA8b1-16 High-Performance Low-Cost DFE Using IFIR Filters Chen Meng, Jamal Tuqan, University of California, Davis
- TA8b1-17 Diversity in Shallow Water Environments Using Blind Time-Frequency Separation Techniques Bertrand Gottin, GIPSA-LAB; Jun Zhang, Antonia Papandreou-Suppappola, Arizona State University; Cornel Ioana. GIPSA-LAB
- TA8b1-18 Fixed-Rate Fine-Resolution Quantization for Detection:
 Asymptotic Divergence Loss with Respect to Optimal
 Likelihood Ratio Quantizers
 Michael Lexa, Don Johnson, Rice University
- TA8b1-19 Nonnegative Basis Learning via Alternating Convex Programming

 Argyris Zymnis, Seung-Jean Kim, Joelle Skaf, Mario
 Parente, Stephen Boyd, Stanford University

Session TA8b2 Performance Bounds

- TA8b2-1 Multiuser Diversity in the Interference Limited Regime Stephanie Pereira, Arogyaswami Paulraj, George Papanicolaou, Stanford University
- TA8b2-2 On the Network Outage Probability with a Common SIR Requirement
 Slawomir Stanczak, Fraunhofer German-Sino Lab
 for Mobile Communications; Holger Boche, Marcin
 Wiczanowski, Technical University of Berlin

- TA8b2-3 Impact of User Mobility and Asymmetry on Multiuser Scheduler Performance

 Pengcheng Zhan, Brigham Young University; Ramesh

 Annavajjala, ArrayComm LLC; A. Lee Swindlehurst,

 Brigham Young University
- TA8b2-4 Multicarrier Broadcast and Unicast Hybrid Systems Hongxiang Li, Bin Liu, Hui Liu, University of Washington
- TA8b2-5 Prediction with Worst-case Constraints

 Dror Baron, Menta Capital LLC; Ananya Sen Gupta,

 IEEE Member; Andrew Singer, University of Illinois at

 Urbana-Champaign

Session TA8b3 Selected Topics in Wireless Communications

- TA8b3-1 Varying Power Integer Codes for CDMA Communications Radha Poluri, Ali Akansu, New Jersey Institute of Technology
- TA8b3-2 Near-Far Resistance of Multirate CDMA Communications Systems Xiaodong Yue, Songlin Tian, University of Central Missouri
- TA8b3-3 Minimum Analog-Digital Quantization Resolution Requirements for Digital Communications Systems Gareth Middleton, Behnaam Aazhang, Rice University
- TA8b3-4 Comparison of Multimedia Transport Schemes over Markovian Wireless Channels Syed Ali Khayam, Hayder Radha, Michigan State University
- TA8b3-5 A novel stochastic model and fast generation method for Nakagami fading channels

 James Ritcey, Chantri Polprasert, University of Washington
- TA8b3-6 Simplified Eigenvalues Distributions of 2 x 2 Complex Noncentral Wishart

 Mohamad Charafeddine, Arogyaswami Paulraj, Stanford
 University
- TA8b3-7 MIMO Systems with Arbitrary Antenna Array
 Architectures: Channel Modeling, Capacity and LowComplexity Signaling
 Vasanthan Raghavan, Ada Poon, Venu Veeravalli,
 University of Illinois at Urbana-Champaign
- TA8b3-8 A Tractable Robust Optimization Approach to Downlink Beamforming in Wireless Communications Almir Mutapcic, Seung-Jean Kim, Stephen Boyd, Stanford University

Session TP1 Underwater Acoustic Array Signal Processing

Chair: Hongya Ge

TP1-1 Performance of line arrays of vector and 1:30 PM higher order sensors

Henry Cox, Hung Lai, Lockheed Martin Corporation

TP1-2	On the use of energy concentrating beamformers and filters for improved estimatio	1:55 PM		BREAK 3:10 PM
	angular extent (active sonar classification) Ashwin Sarma, Naval Undersea Warfare Center; Do Tufts, University of Rhode Island; William Comeau, 1	nald	TP2-5	Shear field around adherent leukocytes as measured by Micro-PTV John Pickard, Klaus Ley, University of Virginia
TP1-3	Undersea Warfare Center Multitaper Array Processing Kathleen Wage, George Mason University Robust Adaptive Beamforming of Volumetric	2:20 PM 2:45 PM	TP2-6	HDR-Microscopy of Cell Specimens: 3:55 PM Imaging and Image Analysis Andre Bell, Dietrich Meyer-Ebrecht, RWTH Aachen University; Alfred Boecking, Heinrich-Heine University
111 4	Arrays Ivars P. Kirsteins, Naval Undersea Warfare Center; Hongya Ge, New Jersey Institute of Technology		TP2-7	Duesseldorf; Til Aach, RWTH Aachen University Extracting Dynamic Microtubule Features from Image Sequences Alphan Altinok, B. S. Manjunath, Kenneth Rose,
	BREAK	3:10 PM		University of California, Santa Barbara
TP1-5	A Frequency-Domain Multi-Band Matched-Filter Approach to Passive Diver Detection	3:30 PM	TP2-8	Geometric and Signal Processing for In Silico 4:45 PM Models of Cell Synapses from Electron Microscopy Chandrajit Bajaj, University of Texas at Austin
	Kil Woo Chung, Hongbin Li, Alexander Sutin, Stevne Institute of Technology	?S	Session	TP3 Ultra-Wideband Communications
TP1-6	Array Manifold Geometry and Sparse Array	3:55 PM	Chair: Ah	med Tewfik
	Design Optimization Neil Malloy, Multisensor Science LLC		TP3-1	The Effect of Timing Error upon UWB 1:30 PM
TP1-7	Cramer-Rao Lower Bound for DOA Estimation Using Vector and Higher-Order Ser	4:20 PM nsor		System Capacity Wenyi Zhang, Urbashi Mitra, University of Southern California
	Arrays Hung Lai, Lockheed Martin Corporation; Kristine Be George Mason University	ell,	TP3-2	High-Speed and Low-Power UWB 1:55 PM Transceiver Design Won Namgoong, University of Texas at Dallas
TP1-8	Improved consistent estimation in Krylov subspaces Francisco Rubio, Xavier Mestre, CTTC	4:45 PM	TP3-3	The search for good digitally generated 2:20 PM Impulse-like UWB signals.
Session	TP2 Cellular Image Analysis			Terry Lewis, Robert Scholtz, University of Southern California / Raytheon
Chair: Sco	•		TP3-4	Adaptive Overlap-and-Add Techniques for 2:45 PM
TP2-1	Detection of linear structures in biological images	1:30 PM		MB-OFDM Systems Anuj Batra, Deric Waters, Srinivas Lingam, Tarkesh Pande, Texas Instruments
	Sylvain Berlemont, Institut Pasteur / Genomic Vision Aaron Bensimon, Genomic Vision S.A.; Jean-Christo			BREAK 3:10 PM
TP2-2	Olivo-Marin, Institut Pasteur Breaking resolution limits: advances and challenges in single molecule microscopy Sripad Ram, University of Texas Southwestern Medic	1:55 PM	TP3-5	High Speed Frequency Hopping Using Injection Locked RF Front-ends Narasimha Lanka, Ramesh Harjani, University of Minnesota 3:30 PM Injection Locked RF Front-ends
	Center; Jerry Chao, Prashant Prabhat, Anish Abraha University of Texas at Dallas; E. Sally Ward, Univer of Texas Southwestern Medical Center; Raimund Ob	sity	TP3-6	Balanced binary sequences for UWB OFDM 3:55 PM Syed Faisal Shah, Ahmed Tewfik, University of Minnesota
FFD2 2	University of Texas at Dallas		TP3-7	Clustering of Wireless Sensors based on 4:20 PM Ultra-Wideband Geo-Regioning
TP2-3	Validation of in vivo Leukocyte Velocity Estimates Via Modeling and Simulation	2:20 PM	TP3-8	Christoph Steiner, Armin Wittneben, ETH Zurich Lower Bound on Time-Delay Estimation 4:45 PM
TP2-4	Philip Morrow, Kurt Saetzler, University of Ulster Using µ-PIV to interrogate the endothelial surface layer in arterioles in vivo Michele Savery, Edward Damiano, Boston University	2:45 PM		Error of UWB Signals Hicham Anouar, Aawatif Menouni Hayar, Raymond Knopp, Christian Bonnet, Institut Eurecom

Session '	FP4a Estimation and Detection		TP5-3	Reducing Complexity of FIR Filter 2:20 PM
Chair: Alek	ksandar Dogandzic			Implementations for Low Power Applications Linda DeBrunner, Florida State University
TP4a-1	Signal Power Estimation Via Vector and Matrix Approaches Lin Du, Jian Li, University of Florida; Petre Stoica, Uppsala University	1:30 PM	TP5-4	Residue Number System for Low Power DSP 2:45 PM Applications Gian Carlo Cardarilli, University of Rome Tor Vergata; Alberto Nannarelli, Technical University of Denmark;
TP4a-2	Distributed Detection of Information Flows with Side-Information Ting He, Lang Tong, Cornell University	1:55 PM		Marco Re, University of Rome Tor Vergata BREAK 3:10 PM
TP4a-3	Two-Dimensional Mixed Autoregressive Models for Space-Time Adaptive Processing Yuri Abramovich, Defence Science and Technology Organisation; Ben Johnson, RLM Management Pty I University of South Australia; Nicholas Spencer, Ade Research & Innovation Pty. Ltd. (ARI)		TP5-5	Low Power Adaptive Filters Based on a 3:30 PM Combination of Genetic Optimization and Residue Number System Coding Chandra Rhadakrishnan, The Pennsylvania State University; Dean Krusienski, North Florida State University; Kenneth Jenkins, The Pennsylvania State University
TP4a-4	Distributed Adaptive Quantization for Wireless Sensor Networks Jun Fang, Hongbin Li, Stevens Institute of Technolog	2:45 PM	TP5-6	Hybrid Multiple Constant Multiplication 3:55 PM Implementation for FIR Filters in FPGA Devices Charles D. Howard, Linda DeBrunner, Victor DeBrunner,
Session '	ΓP4b Array Signal Processing			Florida State University
Chair: And	reas Jakobsson		TP5-7	Impact of RNS Coding Overhead on FIR 4:20 PM Filters Performance
TP4b-1	A Polynomial EVD Algorithm for Broadband Array Signal Processing Joanne Foster, Cardiff University; John McWhirter,			Gian Carlo Cardarilli, Andrea Del Re, University of Rome Tor Vergata; Alberto Nannarelli, Technical University of Denmark; Marco Re, University of Rome Tor Vergata
Baxter, Tom Cooper, Soydan Redif, QinetiQ; Jonatho Chambers, Cardiff University			TP5-8	An RNS-Enhanced Microprocessor 4:45 PM Implementation of Public Key Cryptography
TP4b-2	Eigenanalysis of Subspace Decompositions for Robust Adaptive Beamforming	3:55 PM	Session	Thining Lim, Braden Phillips, University of Adelaide TP6a Network Pricing
	Louis Scharf, Colorado State University; Ali Pezeshk Princeton University; Barry Van Veen, University of Wisconsin-Madison			an Musacchio
TP4b-3	On the Energy-Efficiency of cooperative MIMO in Nakagami fading Wireless Sensor Networks Erik Björnemo, Anders Ahlén, Mathias Johansson, Uppsala University	4:20 PM	TP6a-1	Economic Consequences of Weak Network Neutrality Jean Walrand, University of California, Berkeley; John Musacchio, University of California, Santa Cruz; Galina Schwartz, University of California, Berkeley
TP4b-4	Robust Multi-Sensor Detection of Polymorphic NQR Signals Naveed Razzaq Butt, Andreas Jakobsson, Karlstad University	4:45 PM	TP6a-2	A randomized scheduler for interference-limited networks Atilla Eryilmaz, Asuman Ozdaglar, Massachusetts Institute of Technology; Peter Marbach, University of Toronto
Session '	TP5 Low Power Methods		TP6a-3	The Price of Simplicity 2:20 PM
Chair: W.	K. Jenkins			Srinivas Shakkottai, Stanford Univeresity; Daron Acemoglu, Asuman Ozdaglar, Massachusetts Institute of
TP5-1	Sensor-Networks-Inspired Low-Power Robust PN Code Acquisition	1:30 PM		Technology; Rayadurgam Srikant, University of Illinois at Urbana-Champaign
	Sriram Narayanan, Girish V. Varatkar, Douglas L. J Naresh R. Shanbhag, University of Illinois at Urbana Champaign		TP6a-4	Incentive Compatible QoS Design for 2:45 PM 802.11e Networks Jennifer Price, Pavan Nuggehalli, Tara Javidi, University
TP5-2	Variation-Aware Low-Power Buffer Design Chrysostomos Nicopoulos, Aditya Yanamandra, Sure	1:55 PM	α .	of California, San Diego
	Srinivasan, Vijaykrishnan Narayanan, Mary Jane Irv		Session	•
	The Pennsylvania State University		TP6b-1	Forward Decoding over a Relay Channel 3:30 PM Sibi Raj Bhaskaran, EPFL

TP6b-2	Dimension Expansion Relaying for Slow Fading Channels based on Hybrid Digital-Analogous Channel Coding	3:55 PM
	Source-Channel Coding Sha Yao, Mikael Skoglund, Royal Institute of Technol (KTH)	ogy
TP6b-3	Achievable rates for the restricted half-duplex two-way relay channel Clemens Schnurr, Fraunhofer German-Sino Lab for Mobile Communications; Tobias J. Oechtering, Techn University of Berlin; Slawomir Stanczak, Fraunhofer German-Sino Lab for Mobile Communications	4:20 PM
TP6b-4	The Capacity of One-way Cooperative Multicast Channels with Finite-Rate Feedback Youjian Liu, University of Colorado, Boulder	4:45 PM
Session 7	FP7a Speech Coding, Processing an	nd
	Transport	
Chair: Sean	n Ramprashad	
TP7a-1	Steganographic Wideband Telephony using Narrowband Speech Codecs Peter Vary, Bernd Geiser, RWTH Aachen University	1:30 PM
TP7a-2	Classification-based techniques for improving the robustness of CELP coders Milan Jelinek, Roch Lefebvre, Vaclav Eksler, Catheri Lemyre, Université de Sherbrooke	
TP7a-3	Least Significant Bit Coding of Speech W. Bastiaan Kleijn, Minyue Li, Royal Institute of Technology (KTH)	2:20 PM
TP7a-4	Perceptual Bit-Patterns based on Partial-Order Allocation Schemes with application to Subban Speech and Audio Coding Sean Ramprashad, DoCoMo USA Labs; Soo Hyun Bo Georgia Institute of Technology	d
Session 7	PP7b Plenoptic Signal Processing	
Chair: Dan	Lelescu	
TP7b-1	Shared Interactive Image/Video and their Meeting Applications Qiong Liu, Don Kimber, Eleanor Rieffel, Francine Cl FX Palo Alto Lab	3:30 PM
TP7b-2	Comparison of 3D data formats and coding algorithms for free viewpoint video Aljoscha Smolic, Philipp Merkle, Karsten Mueller, Thomas Wiegand, Fraunhofer HHI	3:55 PM
TP7b-3	Multi-view video compression for multi-view 3D displays Matthias Zwicker, University of California, San Diego	4:20 PM
TP7b-4	Experiential Signal Processing (ESP) and Experiential Telecommunications (ET) Jerry Gibson, University of California, Santa Barbara	4:45 PM

Session TP8a1 Advances in MIMO Communications

- TP8a1-1 Communications through Time-Varying Subspace Channels Benjamin Friedlander, University of California, Santa Cruz
- TP8a1-2 Multichannel Adaptive Interference Suppression and Desired Signal Equalization for Sparse Arrays

 Paul Fiore, Andrew McKellips, Keith Forsythe, MIT

 Lincoln Laboratory
- TP8a1-3 A Selective Decision-Feedback Detector for Space-Time Block Code with Combined Diversity and Spatial Multiplexing Shouxing Qu, Research In Motion Limited
- TP8a1-4 A Comparison of MIMO and Phased Array Radar with the Application of MUSIC Dave Wilcox, Mathini Sellathurai, Tharmalingam Ratnarajah, Queen's University Belfast
- TP8a1-5 On the Performance of Lattice Reduction Schemes for MIMO Data Detection

 Dirk Wuebben, University of Bremen; Dominik Seethaler,

 Vienna University of Technology
- TP8a1-6 Performance Degradation of Viterbi Decoding in the Presence of Discrete Distributed Interference Xueyuan Zhao, Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI)
- TP8a1-7 MIMO Mobile Terminal Tracking Using Bayesian Probability Estimation Konstantinos Papakonstantinou, Eurecom Institute; Merouane Debbah, Supelec; Dirk Slock, Eurecom Institute
- TP8a1-8 On the performance of the Golden code in BICM-MIMO and IEEE 802.11n cases

 Lina Mroueh, Motorola Labs ENST Paris; Stéphanie
 Rouquette-Léveil, Motorola Labs; Ghaya Rekaya-Ben
 Othman, Jean-Claude Belfiore, ENST Paris
- TP8a1-9 Extended Uniform Channel Decomposition for MIMO Communications with Intersymbol Interference Yi Jiang, NextWave Broadband; Mahesh Varanasi, University of Colorado, Boulder
- TP8a1-10 Lattice Reduction Aided Detection with Reduced Complexity for Time-Correlated MIMO Channel Chan-ho An, Janghoon Yang, Seung-hoon Jang, Dong Ku Kim, Yonsei University
- TP8a1-11 The effect of LLR clipping to the complexity of list sphere detector algorithms

 Markus Myllylä, Juho Antikainen, Markku Juntti, Centre for Wireless Communications; Joseph R. Cavallaro, Rice University
- TP8a1-12 Experimental Validation of Maximum Entropy-based MIMO Channel Models

 Raul de Lacerda, Eurecom; Maxime Guillaud, FTW;

 Leonardo Sampaio, Eurecom; Merouane Debbah, Supelec

- TP8a1-13 Copula Models for Wireless Fading and their Impact on Wireless Diversity Combining

 James Ritcey, University of Washington
- TP8a1-14 Out-sphere decoder for non-coherent ML SIMO detection and its expected complexity

 Mihailo Stojnic, Babak Hassibi, California Institute of Technology
- TP8a1-15 Maximizing mutual information in general MIMO fading channels under rank constraint

 Harish Venkatachari, Qualcomm Inc; Mahesh Varanasi,
 University of Colorado, Boulder

Session TP8a2 MIMO Communication over Frequency Selective Channels

- TP8a2-1 An Iterative Receiver for Joint Detection, Decoding, and Channel Estimation in Turbo Coded MIMO OFDM

 Jari Ylioinas, Markku Juntti, Centre for Wireless

 Communication
- TP8a2-2 Adaptive Bit Loading for OFDM Systems with Imperfect Channel State Information Stephan Sand, Armin Dammann, German Aerospace Center (DLR); Carlo Mutti, ETH Zürich
- TP8a2-3 A Practical Approach for Weighted Rate Sum Maximization in MIMO-OFDM Broadcast Channels Mari Kobayashi, Supelec; Giuseppe Caire, University of Southern California
- TP8a2-4 Optimal Noncoherent MIMO-OFDM Constellations at Low SNR
 Shivratna Srinivasan, Mahesh Varanasi, University of Colorado, Boulder
- TP8a2-5 Adaptive Multiband Space-Time UWB Scheme with OFDM-Based Channel Models

 Jiqun Oi, Cao Lei, University of Mississippi
- TP8a2-6 Interference Cancellation and Space-Time Block Codes in Frequency Selective Multiple-Access Channels Debasish Chowdhury, Qualcomm Inc
- TP8a2-7 Robust Minmax Equalization of Imperfectly Known Frequency Selective MIMO Channels
 Nikola Vucic, Fraunhofer HHI; Holger Boche, TU Berlin
- TP8a2-8 A Design of Precoding and Equalisation for Broadband MIMO Systems

 Chi Hieu Ta, Stephan Weiss, University of Strathclyde

Session TP8a3 Adaptive Systems and Processing

- TP8a3-1 Detecting Instability Potentials in Regularization for Fast Affine Projection Algorithms Heping Ding, National Research Council
- TP8a3-2 Maximum a Posteriori based Adaptive Algorithms Dong-Yan Huang, Institute fro Infocomm Research
- TP8a3-3 Robust Notch Filtering by Combining Adaptation in Both Time and Frequency Minh Ta. Victor DeBrunner. Florida State University

- TP8a3-4 Adapting an Optical Equalizer without Regressor Access

 Andrew Klein, Benjamin Evans, C. Richard Johnson, Jr.,

 Cornell University; Glenn Collins, Michael Larimore,

 Jeffrey Harp, John Treichler, Applied Signal Technology
- TP8a3-5 Self Localization Method for Mobile Sensor in Navigation Applications Sangjin Hong, Stony Brook University
- TP8a3-6 A Downlink DS-CDMA Equaliser with Virtual Users Approach Mahmoud Hadef, Queen Mary University of London; Adel Daas, Stephan Weiss, University of Strathclyde
- TP8a3-7 Sensor Network Management Through Fitness Function
 Design In Multi-Objective Optimization
 Lisa Osadciw, Kalyan Veeramachaneni, Syracuse
 University
- TP8a3-8 Optimal Beamforming with Mobile Robots

 Laura Koch, Raviraj Adve, Bruce Francis, University of
 Toronto

Session TP8b1 Multi-User MIMO Communications II

- TP8b1-1 Enhanced SVD-Based Transmit Pre-Processing for Multi-User MIMO Wireless Systems with Imperfect CSIT
 - Amitav Mukherjee, Hyuck Kwon, Wichita State University
- TP8b1-2 Stream Control for Interfering MIMO Links with Linear MMSE Receivers

 Sudhanshu Gaur, Mary Ann Ingram, Georgia Institute of Technology
- TP8b1-3 Coordinated Multi-cell MIMO Systems with Cellular Block Diagonalization Jun Zhang, University of Texas at Austin; Runhua Chen, Texas Instruments Incorporated; Jeffrey Andrews, Robert Heath, University of Texas at Austin
- TP8b1-4 Orthogonal Multi-beam Techniques for Multi-user Diversity and Multiplexing Gain in Packet-based Wireless Systems Dong-Chan Oh, Yong-Hwan Lee, Seoul National University
- TP8b1-5 Throughput and Rate Region for Quasi-Static Multiple Access Channels with Channel Estimation Errors Madhan Jaganathan, Ravi Narasimhan, University of California, Santa Cruz
- TP8b1-6 Achievable Rate Region for Downlink Beamforming in the Presence of Interference *Xiaohu Shang, Biao Chen, Syracuse University*
- TP8b1-7 Decentralized Dynamic Channel Allocation for MIMO systems

 Peter von Wrycza, Mats Bengtsson, Björn Ottersten, Royal Institute of Technology (KTH)
- TP8b1-8 Multiple Antenna Interference Cancellation for M-PSK Signals Using the SAGE Algorithm
 Romain Henri Joseph Piton, Motorola A/S; Ingmar Land,
 University of South Australia; Bin Hu, Bernard Henri
 Fleury, Aalborg University

- TP8b1-9 Space-Time Channel Shortening Based Spatial Multiplexing Schemes for Multiusers with Multipath Channels

 Vimal Sharma, Sangarapillai Lambotharan,
 Loughborough University
- TP8b1-10 Resource Allocation in Uplink Multi-carrier MIMO systems for Low-complexity Transceivers Sumanth Jagannathan, Chan Soo Hwang, John Cioffi, Stanford University

Session TP8b2 OFDM and Multicarrier Communications

- TP8b2-1 Universal linear precoding for widely-linear equalization in OFDM systems

 Donatella Darsena, Università di Napoli Parthenope;

 Giacinto Gelli, Francesco Verde, Università di Napoli Federico II
- TP8b2-2 Dynamic scheduling and power allocation for Multi-cell Capacity Optimization in Downlink OFDM Networks Luca Venturino, Università degli Studi di Cassino; Narayan Prasad, NEC Labs America; Xiaodong Wang, Columbia University
- TP8b2-3 ARQ with Subcarrier Assignment for OFDM Systems
 Chin Keong Ho, Institute for Infocomm Research;
 Hongming Yang, Eindhoven University of Technology;
 Ashish Pandharipande, Philips Research Laboratories;
 Jan W. M. Bergmans, Eindhoven University of Technology
- TP8b2-4 Iterative Decoding, Offset and Channel Estimation for OFDM using the Unscented Kalman Filter

 Taehyuk Kang, Ronald Iltis, University of California,
 Santa Barbara
- TP8b2-5 PAPR Reduction in OFDM Systems by Successive Random Sign Negation Shouxing Qu, Farzaneh Kohandani, Jim Womack, Research In Motion Limited
- TP8b2-6 Robust Peak-to-Average Ratio Reduction in OFDM with Adaptive Clipping Control

 Kitaek Bae, Edward Powers, University of Texas at Austin
- TP8b2-7 An SDP Approach for PAPR Reduction in OFDM Systems Using Partial Transmit Sequences Ahmad Rushdi, Chen Meng, Jamal Tuqan, University of California. Davis
- TP8b2-8 PAPR Reduction in Trigonometric-Based OFDM Systems
 Ahmad Rushdi, Jamal Tuqan, University of California, Davis
- TP8b2-9 Tone Selection for PAR Reduction via Tone Reservation in Uplink OFDMA

 Brian Krongold, University of Melbourne
- TP8b2-10 Near ML Detection of Nonlinearly Distorted OFDM Signals Dimitris Papailiopoulos, George Karystinos, Technical University of Crete

Session TP8b3 Estimation, Synchronization, and Equalization

- TP8b3-1 A Semi-Blind Pilot-Assisted Channel Estimation Algorithm in Cyclic Prefix Systems Borching Su, P. P. Vaidyanathan, California Institute of Technology
- TP8b3-2 Efficient Clock Synchronization in Wireless Sensor Networks

 Qasim Chaudhari, Yi Zhou, Erchin Serpedin, Texas A&M
 University
- TP8b3-3 Pulse-coupled distributed PLLs in heterogeneous wireless networks

 Osvaldo Simeone, New Jersey Institute of Technology;

 Gesualdo Scutari, University of Rome
- TP8b3-4 Cramer-Rao Bounds and Performance Analysis of a Low-Complexity Algorithm for Burst Mode Synchronization

 Jake Gunther, Todd Moon, Utah State University
- TP8b3-5 Time-Slotted Round-Trip Carrier Synchronization Ipek Ozil, Donald Brown, Worcester Polytechnic Institute
- TP8b3-6 OFDM Carrier Synchronization in the presence of Nonlinear High Power Amplifier Amaresh Malipatil, Hao Zhou, Yih-Fang Huang, University of Notre Dame
- TP8b3-7 Preamble Design for Joint Estimation of Frequency
 Offset and I/Q Imbalance in Direct Conversion OFDM
 system
 Jonghun Park, Yusung Lee, Hyuncheol Park, Information
 and Communications University
- TP8b3-8 Preamble-based Symbol Timing Estimation for Wireless OFDM Systems

 Manik Gadhiok, Joseph R. Cavallaro, Rice University
- TP8b3-9 Iterative B-spline Estimator Using Superimposed Training in Doubly-Selective Fading Channels Junruo Zhang, Yuriy V. Zakharov, University of York

Session WA1a Source Localization and Imaging

Chair: Yimin Zhang

- WA1a-1 DOA Estimation for UWB Time Hopping 8:30 AM Impulse Radio Multiple Access System

 Joni Polili Lie, Nanyang Technological University; Chong

 Meng Samson See, DSO National Laboratories; Boon Poh
 Ng, Nanyang Technological University
- WA1a-2 Some new techniques of localization of 8:55 AM spatially distributed sources

 Yide Wang, Ahmed Zoubir, IREENA/Polytech'Nantes
- WA1a-3 Time Reversal Synthetic Aperture Radar 9:20 AM Imaging in Multipath

 Yuanwei Jin, José M. F. Moura, Carnegie Mellon

 University; Michael T. Mulford, Raytheon Corporation;

 Nicholas O'Donoughue, Carnegie Mellon University;

 Alphonso A. Samuel, Raytheon Corporation

WA1a-4	A Novel Approach for Moving Multi-Target Localization Using Dual Frequency Radars an Time-Frequency Distributions	9:45 AM d	Session	WA2b	Signal Processing Techniqu Advanced MR Imaging	es in
	Yimin Zhang, Moeness Amin, Fauzia Ahmad, Villan	ova	Chair: Wm. Scott Hoge			
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Wideband-STAP Ke Yong Li, C & P Technologies, Inc.; Unnikrishna Pi Polytechnic University; Peter Zulch, Michael Callahan			WA2b-2	Strategie constrain Edward I Universit	es for parallel spatiotemporal ned reconstruction of dynamic MRI Dibella, Ganesh Adluru, Eugene Kholmovs y of Utah	10:55 AM
WA1b-2	Air Force Research Laboratory Knowledge-Aided Space-Time Adaptive Processing Xumin Zhu, Jian Li, University of Florida; Petre Sto.	10:55 AM <i>vica</i> ,	WA2b-3	Image in	timation of Coil Sensitivity and n Parallel Magnetic Resonance Imagir ng, Jinhua Sheng, University of Wisconsin- te	
WA1b-3	Uppsala University; Joseph Guerci, SAIC Multi-Channel and Two-Dimensional Fast Parametric Algorithms and Performance for Adaptive Radar Larry Marple, Oregon State University; Muralidhan		WA2b-4	Reconst Cuts Ashish Re	sian Framework For The ruction of Accelerated MRI Using Graph aj, University of California, San Francisco Singh, Ramin Zabih, Cornell University	
	Rangaswamy, Phil (Cpt.) Corbell, Air Force Resear Laboratory	ch		BREAK		10:10 AM
WA1b-4	Doppler resilience, Reed-Muller Codes, and Complementary Waveforms Sofia Suvorova, Stephen Howard, Bill Moran, Robe, Calderbank, Ali Pezeshki, University of Melbourne		WA2b-5	Matrix I	umsonov, Walter Block, Aaron Field, Unive	12:10 PM ersity
	BREAK	10:10 AM	Session	WA3a	Wireless Optical Communic	cations
WA1b-5	A Notion of Diversity Order in Distributed	12:10 PM	Chair: Mai	ïté Brandt-	-Pearce	
	Radar Networks Rani Daher, Raviraj Adve, University of Toronto; M Wicks, Air Force Research Laboratory	lichael	WA3a-1	Optical	and Signal Processing for Free Space MIMO Communications Using Optica	
Session	WA2a New Optical Techniques for Detection and Therapy	Cancer		Amplific Maite Bro Virginia	cation andt-Pearce, Qianling Cao, University of	
Chair: Bri	an Helmke		WA3a-2	Relay-A Commu	ssisted Free-Space Optical	8:55 AM
WA2a-1	Estimation of Cell Statistics on a Cell Manifold for High Content Screening with Automated Cell Segmentation Saurav Basu, Scott T. Acton, University of Virginia	8:30 AM	WA3a-3	Majid Sa Adaptiv with Co Jelena G	fari, Murat Uysal, University of Waterloo e Optical Wireless OFDM System ntrolled Asymmetric Clipping rubor, Volker Jungnickel, Klaus-Dieter La	
WA2a-2	High-Resolution Optical Tracking to Identify Adhesive Events in Vitro Brian Schmidt, Christoper Paschall, William Guilfo Michael Lawrence, University of Virginia		WA3a-4	Hertz-Ins	fer Institute for Telecommunications - Heir titut Coded Optical Communication over ospheric Turbulence Channel	vrich- 9:45 AM
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Sheng, Stan Benedict, James Larner, University of

Biological applications of carbon nanotubes

Hongjie Dai, Stanford University

Virginia

WA2a-4

Session WA3b Iterative Receiver Processin Communication Systems		g in	WA4-8	A Score-Based Scheduler for Spatial 11:45 AM Transmission Mode Selection	
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		carrier synchronization techniques in			Telecommunications - Heinrich-Hertz-Institut; Thomas Haustein, Nokia Siemens Networks
	correctir	sion systems protected by a powerful ag code ls, Marc Moeneclaey, Ghent University	error-	Session '	WA5a Programmable and Reconfigurable Architectures
WA3b-2		t Decoding Revisited egalia, Catholic University of America	10:55 AM	Chair: Jose	seph Cavallaro
WA3b-3	Prediction for adap	ons on turbo-decoding performance tive channel coding . Sneessens, Xavier Jaspar, Cédric Herzet, orpe, Université catholique de Louvain	11:20 AM <i>Luc</i>	WA5a-1	FPGA Realization of Peak-to-Average Power 8:30 AM Ratio Reduction Techniques for OFDM Wireless Systems Chris Dick, Xilinx Inc.
WA3b-4	Improve with line	d iterative decoding of LDPC codes ear complexity Caire, Sang Kim, Universoity of Southern		WA5a-2	Scalable Architecture of MIMO Multi-carrier 8:55 AM CDMA System on Programmable Logic <i>Yuanbin Guo, Nokia Siemens Networks</i>
Session Chair Vin		Feedback in MIMO Systems	s	WA5a-3	Design Space Exploration for Real-Time 9:20 AM Reconfigurable Computing Martin Holzer, Bastian Knerr, Markus Rupp, Vienna University of Technology
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W A4-1	Feedbac Estimati Yoganan	ance Analysis of Finite Rate k MISO Systems in the Presence of on Errors and Delay da Isukapalli, Bhaskar Rao, University of a, San Diego	6.50 AW		MIMO Systems: Design and Implementation Trade- offs Christoph Studer, Patrick Blösch, Peter Friedli, Andreas Burg, ETH Zurich
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		Ekbatani, Farzad Etemadi, Hamid Jafarkha y of California, Irvine	ıni,	WA5b-2	A programmable SOC processor for image 10:55 AM detection applications
WA4-6	Transmi	t Beamforming with Reduced	10:55 AM		Mahesh Kumarasamy, Roger Woods, Queen's University Belfast

Feedback Information in OFDM Based Wireless

Seung-Hyeon Yang, Jae-Yun Ko, Yong-Hwan Lee, Seoul

Paula Castro, University of A Coruna; Michael Joham, TU Munich; Luis Castedo, University of A Coruna;

Optimized CSI Feedback for Robust THP

Systems

Design

WA4-7

National University

Wolfgang Utschick, TU Munich

Belfast

WA5b-3

WA5b-4

11:20 AM

A Combined Pipelined and Microcoded

Ian Steiner, Graham Jullien, ATIPS Laboratories

Chris N. Hinds, David R. Lutz, ARM Inc.

Mobile SoC Applications

Communication Technologies

Floating-Point Solution for Multimedia Targeted to

A Fault-Tolerant Complex FIR Filter for SoC 11:45 AM

11:20 AM

Session WA6a Radar Signal Processing

Yan Li, Zhenlei Shen, Shalinee Kishore, Lehigh

University; Aylin Yener, Pennsylvania State University

Chair: Michael Wicks

Chair: Andreas Spanias WA6a-1 RF Tomography 8:30 AM WA7a-1 Rate-Distortion Optimal Modeling and Michael Wicks, Air Force Research Laboratory **Quantization Using a Perceptually Relevant** Distortion Measure WA6a-2 Knowledge-Aided, Physics-Based Signal 8:55 AM W. Bastiaan Kleijn, Royal Institute of Technology (KTH); Processing For Next-Generation Radar Richard Heusdens, Delft University of Technology William L. Melvin, Gregory Showman, Georgia Tech Research Institute A Reduced Rate Ultra Low Delay Audio WA7a-2 Coder using VQ WA6a-3 Auxiliary-Vector RADAR on MCARM data 9:20 AM Stefan Wabnik, Gerald Schuller, Fraunhofer IDMT Dimitris Pados, State University of New York at Buffalo; George Karystinos, Technical University of Crete; Stella Perceptual Audio Coding - A History and WA7a-3 Batalama, State University of New York at Buffalo; John Timeline Matyjas, Air Force Research Laboratory, IFGC James Johnston, Microsoft Corporation WA6a-4 A Net Track Solution to Pose-Angular 9:45 AM Packet Loss Concealment for Predictive WA7a-4 Tracking of Maneuvering Targets in Clutter with Speech Coding Based on Extrapolation of Speech HRR Radar Waveform Chun Yang, Sigtem Technology, Inc.; Erik Blasch, Air Juin-Hwey Chen, Broadcom Corporation Force Research Laboratory: Wendy Garber, Riohard **Wavelet and Filter Bank Methods** Session WA7b Mitchell, ATK Mission Research for Image and Video Processing **Signal Processing in Cognitive Session WA6b** Radio Networks Chair: Bryan Usevitch Chair: Stella Batalama WA7b-1 Directional Filter Banks for Wavelet Decomposition of Images Based on the Radon WA6b-1 Throughput Enhancing Cooperative Spectrum 10:30 AM Transform Sensing Strategies for Cognitive Radios Ricardo von Borries, Cristiano Jacques Miosso, Cristhian Kyounghwan Lee, Aylin Yener, Pennsylvania State Potes, University of Texas at El Paso University WA7b-2 Separable, Complex, Biorthogonal, Training Sequence Design for Wireless WA6b-2 10:55 AM Two-channel, Perfect Reconstruction Filter Banks Cognitive Communication Systems in Frequencyand Wavelets Selective Fading Bryan Usevitch, University of Texas at El Paso Peter Parker, Patrick Mitran, Harvard University; Daniel WA7b-3 Lifting-based Compression of Images in Bliss, MIT Lincoln Laboratory: Vahid Tarokh, Harvard Bayer Array Format University Jesus Enriquez, Jose Gerardo Rosiles, Sergio Cabrera, Cognitive Medium Access in WLAN Bands: 11:20 AM WA6b-3 University of Texas at El Paso A Real-Time Testbed WA7b-4 Equivalence of symmetric pre-extension and 11:45 AM Stefan Geirhofer, John Z. Sun, Lang Tong, Cornell lifting step extension in the JPEG 2000 standard University; Brian M. Sadler, Army Research Laboratory Christopher Brislawn, Los Alamos National Lab Distributed spatio-temporal spectrum sensing: 11:45 AM WA6b-4 **BREAK** An experimental study Chandrasekharan Raman, Janani Kalyanam, Ivan Seskar, Narayan Mandayam, WINLAB, Rutgers University WA7b-5 Curvature Scale Space Application to Distorted Object Recognition and Classification BREAK 10:10 AM Natan Jacobson, Truong Nguyen, University of California, San Diego; Frank Crosby, Naval Surface Warfare Center Distributed and Collaborative Primary Signal 12:10 PM WA6b-5 - Panama City Feature Estimation for Cognitive Radios under Communication Constraints

Session WA8a1 Wireless Networks

Session WA7a Speech and Audio Coding

8:30 AM

8:55 AM

9:20 AM

9:45 AM

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11:20 AM

10:10 AM

12:10 PM

WA8a1-1 Decentralized Random Parity Forwarding in Multi-Source Wireless Relay Networks Sang Wu Kim, Iowa State University

- WA8a1-2 Optimal Power Allocation for Cooperative Beamforming in Wireless Ad Hoc Networks

 Sharon Betz, Princeton University; Athina Petropulu,

 Drexel University; H. Vincent Poor, Princeton University
- WA8a1-3 A Reliability Study of RFID Technology in a Fading Channel Weilian Su, Kyle M Beilke, Tri T. Ha, Naval Postgraduate School
- WA8a1-4 Closed Form Throughput of a Slotted ALOHA Network Using LMMSE Receiver Hemabh Shekhar, Mary Ann Ingram, ArrayComm

Session WA8a2 Sensor Networks

- WA8a2-1 Distributed Estimation with Channel Estimation Error over Orthogonal Fading Channels Habib Senol, Kadir Has University; Cihan Tepedelenlioglu, Arizona State University
- WA8a2-2 Asymptotic Analysis of Distributed Estimation over Fading Multiple Access Channels Cihan Tepedelenlioglu, Mahesh Banavar, Andreas Spanias, Arizona State University
- WA8a2-3 Multi-Hop Progressive Decentralized Estimation of Deterministic Vector in Wireless Sensor Networks *Yi Huang, Yingbo Hua, University of California, Riverside*
- WA8a2-4 Hypothesis Testing and Iterative WLS Minimization for WSN Localization under LOS/NLOS Conditions Giuseppe Destino, Davide Macagano, Giuseppe Abreu, University of Oulu
- WA8a2-5 Distributed Detection for Wireless Sensor Networks with a Hybrid Serial-Parallel Configuration

 Pu Wang, Hongbin Li, Stevens Institute of Technology
- WA8a2-6 Power Efficient Distributed Estimation in a Bandlimited Wireless Sensor Network

 Thakshila Wimalajeewa, Sudharman K. Jayaweera,
 University of New Mexico

Session WA8a3 Radar and Array Signal Processing

- WA8a3-1 Multibeam Amplitude Comparison Problems for MIMO Radar's Angle Measurement Qian He, Zishu He, University of Electronic Science and Technology of China
- WA8a3-2 Waveform Design for MIMO Radar with Space-Time Constraints

 Benjamin Friedlander, University of California, Santa

 Cruz
- WA8a3-3 Robust Phase-Only Nulling for Adaptive and Nonadaptive Phased Arrays

 Donald Day, Johns Hopkins University
- WA8a3-4 Matched detector and estimator with signature uncertainty.

 Jean Jacques Fuchs, IRISA / Univ. de Rennes 1
- WA8a3-5 Derivation and analysis of an adaptive detector with enhanced mismatched signals rejection capabilities Francesco Bandiera, Università del Salento; Olivier Besson, ENSICA; Danilo Orlando, Giuseppe Ricci, Università del Salento

- WA8a3-6 Morphological Component Analysis and STAP Hedley Morris, Monica De Pass, Claremont Graduate University
- WA8a3-7 Wavefront Adaptive Raymode Processing for Over-the-Horizon HF Radar Clutter Mitigation Oguz Kazanci, Igal Bilik, Jeffrey Krolik, Duke University
- WA8a3-8 Effect of Bandwidth on Wideband-STAP Performance Unnikrishna Pillai, Polytechnic University; Ke Yong Li, C & P Technologies, Inc.; Joseph Guerci, Guerci Consulting
- WA8a3-9 Comparison of Radar-Based Human Detection Techniques Sevgi Zubeyde Gurbuz, William L. Melvin, Douglas B. Williams, Georgia Institute of Technology
- WA8a3-10 Time Reversal Transmission in MIMO Radar Yuanwei Jin, José M. F. Moura, Carnegie Mellon University
- WA8a3-11 Coherent Change Detection Statistics for Multiple Polarization SAR Images Rajesh Sharma, Northrop Grumman Corporation
- WA8a3-12 Cramér-Rao Bound and Maximum Likelihood Estimation of Covariance Matrices with Non-Homogeneous Snapshots Olivier Besson, Stéphanie Bidon, ENSICA; Jean-Yves Tourneret, IRIT/ENSEEIHT
- WA8a3-13 A Closed Form Expression For The Number Of Costas Arrays of Arbitrary Order Bill Correll, Jr. General Dynamics
- WA8a3-14 Sparsity Constraint on DOA Estimation with Uncalibrated Antenna Array Ying Zhang, Qun Wan, Anming Huang, University of Electronic Science and Technology of China
- WA8a3-15 Compressive Sensing for GPR Imaging
 Ali Cafer Gurbuz, James H. McClellan, Waymond R.
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- WA8a3-16 A Graph-Theoretic Approach for Constraining Floor Plan Estimation from Radar Measurements Jeffrey Krolik, Granger Hickman, Duke University
- WA8a3-17 Decentralized Collaborative Uplink Beamforming With Robustness Against Channel Mismatches Amr El-Keyi, Benoit Champagne, McGill University
- WA8a3-18 Semi-Blind Adaptive Beamforming for Cyclostationary Signals: A Kalman Filtering Approach Amr El-Keyi, Benoit Champagne, McGill University
- WA8a3-19 A Novel Constrained Adaptive Algorithm Using the Conjugate Gradient Method for Smart Antennas

 Lei Wang, Rodrigo de Lamare, University of York
- WA8a3-20 On the Detection of Footsteps Based on Acoustic and Seismic Sensing Satish Iyengar, Pramod Varshney, Syracuse University
- WA8a3-21 Signatures of Walking Humans from Passive and Active Acoustic Data using Time-Varying Vector Autoregressions

 Jingdong Chen, Melanie Rudoy, Charles Rohrs,

 Massachusetts Institute of Technology

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Dash, Debashis		Eom, Seungyeon	
Datta, Aniruddha		Epstein, Frederick H	
Daudet, Laurent		Ercegovac, Milos D	
Davis, Michael		Eriksson, Jan	
Day, Donald		Erkip, Elza	
de Almeida, André		Erkip, Elza	
de Lacerda, Raul		Erkip, Elza	
de Lamare, Rodrigo		Eryilmaz, Atilla	
de Lamare, Rodrigode			
de Lamare, Rodrigode		Eryilmaz, Atilla	
, ,		Eryilmaz, Atilla	
De Lathauwer, Lieven		Esli, Celal	
De Lathauwer, Lieven		Etemadi, Farzad	
De Pass, Monica		Evans, Benjamin	
De Vos, Maarten		Evans, Brian	
Debbah, Merouane		Evans, Brian	
Debbah, Merouane		Falk, Tiago H	
Debbah, Mérouane		Fang, Jun	
Debbah, Mérouane	MA3b-5	Farrar, Charles R	
Debbah, Mérouane		Farsiu, Sina	
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Del Re, Andrea		Fleury, Bernard	
Del Re, Andrea		Fleury, Bernard Henri	
Derriso, Mark		Forsythe, Keith	
DeSimio, Martin P		Forsythe, Keith	
Destino, Giuseppe		Foschini, Gerard	
DeYoung, Marcus		Foschini, Gerard	
Dibella, Edward		Foster, Joanne	
Dick, Chris		Fox, James	
Ding, Heping		Franceschetti, Massimo	
Djordjevic, Ivan		Francis, Bruce	
Djuric, Petar M		French, Brent A.	
Doufexi, Angela		Friedlander, Benjamin	
Dougherty, Edward		Friedlander, Benjamin	
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Godtmann, Susanne	
Goldsmith, Andrea	
Goldsmith, Andrea	
Gomadam, Krishna	
Gonzales Navarro, Sonya	
Gottin, Bertrand	
Gregoratti, David	
Grubor, Jelena	
Gudmundson, Erik	
Guerci, Joseph	
Guerci, Joseph	
Guilford, William	
Guillaud, Maxime	
Guillemot, Christine	
Guillemot, Christine	
Gunduz, Deniz	
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Gunther, Jake	
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Ha, Tri T	
Haardt, Martin	
Hadef, Mahmoud	
Haenggi, Martin	
Han, Kyung-Nam	
Harjani, Ramesh	
Harmanci, A. Ozgun	
Harp, Jeffrey	
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8	harris, fredric	TA8b1-15
5	Harrison, Mark	MP4-3
3	Hassibi, Arjang	MA7b-5
4	Hassibi, Babak	
3	Hassibi, Babak	
3	Hassibi, Babak	
2	Hassibi, Babak	
4	Haustein, Thomas	WA4-8
3	Havlicek, Joseph	
3	Haykin, Simon	
1	He, Qian	
1	He, Ting	
4	He, Xiang	
6	He, Zishu	
6	Healy Jr., Dennis	
6	Heath, Robert	
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	Heath, Robert	
4	Helmke, Brian	WA2a-3
1	Hemaraj, Yashwanth	
8	Hernandez, Alfredo	
8	Herzet, Cédric	
5	Heusdens, Richard	
1	Hickman, Granger	
1	Hinds, Chris N	
7	Hinds, Chris N	
1	Hjørungnes, Are	
5	Hjørungnes, Are	
7	Ho, Chin Keong	
2	Hoge, W. Scott	WA2b-1
3	Holzer, Martin	WA5a-3
6	Hong, Sangjin	TP8a3-5
2	Hossack, John A	TA2-2
8	Howard, Charles D	TP5-6
2	Howard, Stephen	WA1b-4
2	Hu, Bin	TP8b1-8
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7	Huang, Anming	
4	Huang, Dong-Yan	
7	Huang, Howard	
4	Huang, Howard	
5	Huang, Jianhua	
2	Huang, Jianwei	
5	Huang, Kaibin	
9	Huang, Yi	WA8a2-3
4	Huang, Yih-Fang	
3	Hunger, Raphael	
3	Huttunen, Anu	
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4	Ibing, Andreas	
5	Ikehara, Masaaki	
2	Iltis, Ronald	
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Irwin, Mary Jane		Kalyanam, Janani	
Ismail, Yasser		Kandadai, Srivatsan	
Isukapalli, Yogananda		Kang, Taehyuk	
lyengar, Satish		Kar, Soummya	
Jacobson, Natan		Karkooti, Marjan	
Jacques Miosso, Cristiano		Karystinos, George	
Jafar, Syed		Karystinos, George	
Jafar, Syed		Kazanci, Oguz	
Jafarkhani, Hamid		Keely, Andrew	
Jaganathan, Madhan		Kelley, Brian	
Jagannathan, Sumanth		Ketseoglou, Thomas	
Jakimoski, Goce		Khan, Usman	
Jakobsson, Andreas		Khayam, Syed Ali	
Jakobsson, Andreas		Kholmovski, Eugene	
Jakobsson, Andreas		Kim, Changick	
Jakobsson, Andreas		Kim, Changick	
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Jang, Seung-hoon Jaspar, Xavier		Kim, Dong Ku	
Jaspar, Navier Javidi, Tara		Kim, Dong Ku	
· · · · · · · · · · · · · · · · · · ·		Kim, Dong Slk Kim, Kyeong Jin	
Javidi, Tara			
Jayaweera, Sudharman K		Kim, Sang	
Jelinek, Milan		Kim, Sang Wu	
Jenkins, Christipher		Kim, Seung-Jean	
Jenkins, Kenneth		Kim, Seung-Jean	
Jenn, David		Kim, Wonjun	
Jensen, Søren Holdt		Kim, Younsun	
Jensen, Søren Holdt		Kimber, Don	
Jensen, Søren Holdt		Kirsteins, Ivars P	
Jiang, Yi		Kishore, Shalinee	
Jiang, Yi		Kleijn, W. Bastiaan	
Jin, Mingwu		Kleijn, W. Bastiaan	
Jin, Yuanwei		Kleijn, W. Bastiaan	
Jin, Yuanwei		Klein, Andrew	
Jindal, Nihar		Klein, Jeffrey D	
Jindal, Nihar		Knerr, Bastian	
Joham, Michael		Knopp, Raymond	
Joham, Michael		Ko, Jae-Yun	
Johansson, Håkan		Kobayashi, Mari	
Johansson, Mathias		Kobayashi, Mari	
Johnson, Ben		Koch, Laura	
Johnson, Don		Koduri, Sirisha	
Johnson, Jr., C. Richard		Kohandani, Farzaneh	
Johnston, James		Koivunen, Visa	
Jolesz, Ferenc		Koivunen, Visa	
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Lawrence, Michael	
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Lee, Ruby	
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Lee, Yusung	
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Lei, Cao	
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Li, Min	
Li, Minyue	
Li, Yan	
Liang, Faming	
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2	Lim, Zhining	
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1	Liu, Bin	
3	Liu, Daniel	TA8a2-5
4	Liu, Hang	TA7-4
1	Liu, Hui	TA8b2-4
7	Liu, Hui	MP8a1-2
1	Liu, Jie	
7	Liu, Ju	
9	Liu, Qiong	
6	Liu, Wei	
8	Liu, Ying	
6	Liu, Youjian	
3	Liu, Youjian	
5	Liu, Zhengye	
4	Loizou, Christos P.	
3	Loke, Yong	
3	Love, David	
2	Lowdermilk, Wade	
0	Lozano, Angel	
1	Lunden, Jarmo	
1	Lutz, David	
4	Lutz, David R	
6	Ma'ayan, Avi	IVIA/D-1
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2	MacLeod, Rob	
3	Madhow, Upamanyu	
5	Mahalanobis, Abhijit	
1	Mailaender, Laurence	MA4b-1
2	Majjigi, Vinay	
2	Makki, Behrooz	
1	Maleki, Arian	
3	Malipatil, Amaresh	
8	Malloy, Neil	
5	Mamidi, Suman	
5	Mandayam, Narayan	
5	Manjunath, B. S	TP2-7
4	Marbach, Peter	TP6a-2
4	Maric, Ivana	TA6-7
1	Marple, Larry	WA1b-3
2	Martini, Anna	
1	Marvasti, Farrokh	MP8a3-7
1	Massa, Andrea	
8	Mateos, Gonzalo	MP6-6
1	Mathews, David	
3	Mathias, Hervé	
5	Matyjas, John	
2	May, Elebeoba	
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McEachen, John	MP8b1-8	Moshnyaga, Vasily	TA8a1-7
McKellips, Andrew	TP8a1-2	Mota, João Cesar	MP8a2-2
McWhirter, John	TP4b-1	Mota, João Cesar	MP8b1-10
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Medard, Muriel	TA6-5	Moura, José M. F	WA8a3-10
Medda, Alessio	TA5-4	Moura Mota, João Cesar	MP8b1-15
Mellers, Susan	WA5a-5	Mousavi, Seyed Mohamma	d Ebrahim
Melvin, William L	WA6a-2		MP8b2-3
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Meng, Chen		Mroueh, Lina	
Meng, Chen	TP8b2-7	Msechu, Eric J	
Menouni Hayar, Aawatif	TA3-4	Mueller, Karsten	
Menouni Hayar, Aawatif	TP3-8	Mukherjee, Amitav	
Merkle, Philipp	TP7b-2	Mukherjee, Amitav	
Merli, Filippo		Mulford, Michael T	
Mestre, Xavier	MA3b-2	Muller, Jean-Michel	
Mestre, Xavier	MA4b-4	Müller, Ralf	MA3b-3
Mestre, Xavier	TP1-8	Murillo, Sergio E	
Meyer-Ebrecht, Dietrich		Murray, Victor	
Meyr, Heinrich		Musacchio, John	TP6a-1
Mi, Jun		Mutapcic, Almir	TA8b3-8
Michalowicz, Joseph V		Mutti, Carlo	TP8a2-2
Michel, Thomas		Myllylä, Markus	TA8a1-1
Michels, James		Myllylä, Markus	TP8a1-11
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Milstein, Laurence		Naraghi-Pour, Mort	MP8b1-21
Minoo, Koohyar		Narasimhan, Ravi	TP8b1-5
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Mohammadi, Arash		Ng, Boon Poh	WA1a-1
Mollova, Guergana		Nguyen, Truong	TA8b1-7
Mollova, Guergana		Nguyen, Truong	
Mondal, Bishwarup		Nguyen, Truong	MP2b-2
Montes de Oca, Jose A		Nguyen, Truong	
Moon, Todd		Nichols, Jonathan	
Moon, Todd		Nicolaides, Andrew	TA2-3
Moradi, Mohammad Hasan		Nicopoulos, Chrysostomos.	
Moradi, Mohammad Hasan		Nion, Dimitri	MP7-1
Moran, Bill		Niu, Xiaofeng	
Moreau, Eric		Noels, Nele	WA3b-1
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Morris, Hedley		Nuggehalli, Pavan	
Morrow, Philip		Nystrom, Marcus	
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O'Donoughue, Nicholas	
Oechtering, Tobias J	
Oh, Dong-Chan	
Oien, Geir Egil	
Olivo-Marin, Jean-Christoph	
Olson, Alex	
Olson, Steven E	
Oppenheim, Alan	
Oppenheim, Alan	
Orlando, Danilo	
Ortega, Antonio	TA7-3
Osadciw, Lisa	TP8a3-7
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Pal, Ranadip	MA2h-1
Palomar, Daniel	
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Pande, Tarkesh	
Pandharipande, Ashish	
Papailiopoulos, Dimitris	
Papakonstantinou, Konstant	ince TD8a1-7
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Papandreou-Suppappola, A	
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Park, Gyuhae	
Park, Hyuncheol	
Park, Jonghun	
Park, Sin-Chong	
Parker, Peter	
Parthasarathy, Harish	
Parvaresh, Farzad	
Paschall, Christoper	
Pattichis, Costantinos S	
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Paulraj, Arogyaswami	
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Pezeshki, Ali	
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Phillips, Braden	
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Piechocki, Robert J	TA8a2-6
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Plass, Simon	
Plishker, William	
Polprasert, Chantri	
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Poor, H. Vincent	
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Popescu, Dimitrie	
Popescu, Dimitrie	
Porée, Fabienne	
Potes, Cristhian	
Powers, Edward	
Prabhat, Prashant	
Prasad, Narayan	
Price, Jennifer	
Qi, Jiqun	
Qiu, Anqi	
Qu, Dongdong	
Qu, Shouxing	
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Quinn, Barry	
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Radha, Hayder	
Radosavljevic, Predrag	
Raghavan, Vasanthan	
Raj, Ashish	
Ram, Sripad	TP2-2
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Ramprashad, Sean	TP7a-4
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Rao, Bhaskar	
Ratnarajah, Tharmalingam	
Rawat, Danda	
Ray, Nilanjan	
Re, Marco	
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Read, PaulReda Taha, Mahmoud	
Redif, Soydan	
Regalia, Phillip	WA3D-2

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Rhadakrishnan, Chandra	
Ribeiro, Alejandro	
Ricci, Giuseppe	
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Richter, Andreas	
Rieffel, Eleanor	
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Roemer, Florian	
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Rolim Fernandes, Carlos Alex	andre
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Rushdi, Ahmad	
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Ryan, Øyvind	
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Sadati, Nasser	
Sadler, Brian M	WA6b-3
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Saha, Baidya	
Sahin, Onur	
Sahmoudi, Mohamed	
Sahraeian, Sayed Mohamma	
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Salmi, Jussi	
Sammartino, Pier Francesco.	
Samoilov, Michael	
Sampaio, Leonardo	
Samset, Eigil	
Samsonov, Alexey	
Samuel, Alphonso A	
Sand, Stephan	
Sand, Stephan	
Sanei, Saeid	
Sarma, Ashwin	IP1-2

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Scharf, Louis	
Schellmann, Malte	
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Schizas, Ioannis	
Schmidt, Brian	
Schniter, Philip	TA8a2-3
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Schober, Robert	
Scholtz, Robert	
Schreier, Peter J	
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Schroeder, Jim	
Schuller, Gerald	WA7a-2
Schulte, Michael	TA8a1-5
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Schwartz, Galina	TP6a-1
Scott, Waymond R	WA8a3-15
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See, Chong Meng Samson.	WA1a-1
Seethaler, Dominik	TP8a1-5
Sejdinovic, Dino	TA8a2-6
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Sen, Mainak	MA5b-3
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Senk, Vojin	
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Seo, Hae Jong	
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Serra-Sagrista, Joan	
Servetto, Sergio	
Seskar, Ivan	
Seyedsalehi, Seyed Ali	MP8a4-6
Seyyedsalehi, Seyyed Ali	
Shah, Mubarak	
Shah, Syed Faisal	
Shakkottai, Srinivas	
Shamai (Shitz), Shlomo	
Shamai (Shitz), Shlomo	
Shanbhag, Naresh R	
Shang, Xiaohu	
Sharma, Gaurav	
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Sharma, Rajesh	
Sharma, Vimal	
Shekhar, Hemabh	
Shekhar, Raj	
Shen, Zhenlei	
Sheng, Jinhua	
Sheng, Ke	
Shetty, Niranjan	
Shoji, Yoshikazu	
Showman, Gregory	
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Silddiqui, Hasib		Suzuki, J
Silvén, Olli		Swartzlar Swindleh
Silverstein, Jack		Szabo, Zs
Simeone, Osvaldo		,
Simeone, Osvaldo		Ta, Chi H
Sims, Richard		Ta, Minh.
Singer, Andrew		Tabrikian
Singh, Gurmeet		Tadmor, (
Sirkeci-Mergen, Birsen		Taherkha
Sitton, Gary		Taherkha
Skaf, Joelle		Takala, Ja
Skoglund, Mikael		Takeda, I
Skoglund, Mikael		Talavage
Skoglund, Mikael		Tanabe, I
Slock, Dirk		Tanaka, \
Smolic, Aljoscha	TP7b-2	Tandon, I
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Srinivasan, S.Ram		Thiele, La
Srinivasan, Shivratna		Thiele, La
Srinivasan, Suresh		Thobaber
Srivastava, Ashok		Thomas,
Stanczak, Slawomir		Tian, Son
Stanczak, Slawomir		Tomlinson
Steger, Christopher		Tong, Lar
Stein, Alan		Tong, Lar
Steiner, Christoph		Tong, Lar
Steiner, Christoph Steiner, Ian		Tong, Ma
Stéphenne, Alex		Took, Cliv
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Stites, Matthew		Tran, Day
Stoica, Petre		Tran, Tra
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Sturm, Bob L		Trump, To
Su, Borching		Tsen, Cha
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Subbalakshmi, K. P		Tummala
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