

PRELIMINARY

PROGRAM

Eighth International Conference on the Ultrasonic Measurement and Imaging of Tissue Elasticity[©]

Vlissingen, Zeeland, The Netherlands
September 14–17, 2009

Monday, September 14

9:00A – 8:00P

9:00A – 12:00P Presentation & Exhibit Set Up

All Oral Presenters load presentations onto Conference computers (CD/jump drive) Lecture Hall
Poster Presenters set up presentations Conference Room 2 & Lecture Hall
Exhibitors set up exhibits Conference Room 2

9:00A – 8:00P

Registration Desk Open Conference Foyer

11:00A – 12:00P

2:00P – 2:30P

4:30P – 5:00P

6:00P – 8:00P

Session EEX: Equipment Exhibit

Conference Room 2

Monday

12:00P – 2:00P

Session TUT: Tutorials: Clinically Oriented Physics & Instrumentation

Chair: D Cosgrove, UK

Co-Chair: R Maurice, Canada

Lecture Hall

12:00P – 12:45P

107 ELASTICITY IMAGING: TO BOLDLY MEASURE WHAT NO ONE HAS SHEARED BEFORE.

R Sinkus^{1}.*

¹Laboratoire Ondes et Acoustique, ESPCI, Paris, FRANCE.

12:45P – 1:00P

Discussion

1:00P – 1:45P

113 ELASTICITY IMAGING SYSTEMS: HOW DO THEY WORK AND WHERE ARE WE HEADED?

TJ Hall^{1}.*

¹University of Wisconsin–Madison, Madison, WI, USA.

1:45P – 2:00P

Discussion

2:00P – 2:30P

COFFEE BREAK

Conference Foyer

Monday

2:30P – 4:30P

Session SAS: Oral Presentations of Finalists for Student Awards Session

Sponsored by Ultrasonix Medical Corporation, Vancouver, BC, Canada

Chair: KJ Parker, USA

Co-Chair: J Ophir, USA

Lecture Hall

2:30P – 2:45P

016 RECENT CLINICAL RESULTS OF ACOUSTIC RADIATION FORCE IMPULSE IMAGING OF ABDOMINAL ABLATION.

DP Bradway^{1}, BJ Fahey¹, RC Nelson¹, GE Trahey¹.*

¹Duke University, Durham, NC, USA.

(Session SAS continues on next page)

PRELIMINARY

(Session SAS continued from previous page)

2:45P – 3:00P

- 036 ON THE FEASIBILITY OF MONITORING CARDIAC HYPERTROPHY AND FIBROSIS USING BIPLANE ULTRASOUND STRAIN IMAGING.
RGP Lopata^{1}, MM Nillesen¹, L Kapusta², SK Singh³, HB van Wetten³, CN Verrijp⁴, JAWN van der Laak⁴, JM Thijssen¹, CL de Korte¹.*
^{1,2,3,4}Radboud University Nijmegen Medical Center, Nijmegen, The NETHERLANDS.

3:00P – 3:15P

- 043 COMPLIANCE WEIGHTED IMAGING BASED ON HARMONIC SHEAR WAVE SCATTERING.
V Rengaraju^{1,2}, AFF da Silva², C Kargel², S Papazoglou¹, J Braun³, I Sack¹.*
^{1,3}Charité – University Medicine, Berlin, GERMANY; ²Bundeswehr University, Munich, GERMANY.

3:15P – 3:30P

- 047 GENERATION AND TRACKING OF CIRCUMFERENTIALLY AND LONGITUDINALLY-PROPAGATING MECHANICAL WAVES USING A SINGLE TRANSDUCER: VASCULAR APPLICATIONS.
DM Dumont^{1}, ÁP Tierney², JJ Dahl¹, SJ Hsu¹, GE Trahey¹.*
¹Duke University, Durham, NC, USA; ²University of Limerick, Limerick, IRELAND.

3:30P – 3:45P

- 049 PARAMETRIC ANALYSIS OF MYOCARDIAL STIFFNESS CHANGES WITHIN THE CARDIAC CYCLE WITH ACOUSTIC RADIATION FORCE IMPULSE IMAGING.
SJ Hsu^{1}, PD Wolf¹, GE Trahey¹.*
¹Duke University, Durham, NC, USA.

3:45P – 4:00P

- 057 REAL-TIME ELASTOGRAPHY OF THE BRAIN.
C Uff^{1}, L Garcia¹, J Fromageau¹, N Dorward², J Bamber¹.*
¹Institute of Cancer Research, Sutton, Surrey, England, UK; ²Royal Free Hospital, London, England, UK.

4:00P – 4:15P

- 062 MEASURING MECHANICAL PROPERTIES OF GRAY AND WHITE MATTER *IN VIVO* USING MAGNETIC RESONANCE ELASTOGRAPHY.
AJ Pattison^{1}, SS Lollis², PR Perrinez¹, IM Perreard³, MDJ McGarry¹, JB Weaver^{1,3}, KD Paulsen^{1,4}.*
¹Dartmouth College, Hanover, NH, USA; ^{2,3}Dartmouth-Hitchcock Medical Center, Lebanon, NH, USA; ⁴Norris Cotton Cancer Center, Lebanon, NH, USA.

4:15P – 4:30P

- 081 AUTOMATIC PROSTATE SEGMENTATION FROM TRANSRECTAL ULTRASOUND ELASTOGRAPHY IMAGES USING GEOMETRIC ACTIVE CONTOURS.
O Goksel^{1}, SE Salcudean¹.*
¹University of British Columbia, Vancouver, BC, CANADA.

4:30P – 5:00P

Recess

Monday 5:00P – 6:00P

(Posters will be available for viewing and Coffee Break Discussion through Thursday, September 17, 3:45P)

Session POS: Poster Session – Live Oral Summaries

Chair: CL de Korte, The Netherlands

Co-Chair: E Mazza, Switzerland

Lecture Hall

5:00P – 5:02P

- 003 DEVELOPMENT OF A WEIGHTING SCHEME FOR STRAIN ESTIMATION.
L Chen^{1}, RJ Housden¹, GM Treece¹, AH Gee¹, RW Prager¹.*
¹University of Cambridge, Cambridge, England, UK.

5:02P – 5:04P

- 022 BLOOD VESSEL STRAIN IMAGING USING LINEAR ARRAY TRANSDUCER WITH STEERING.
DK Ahn^{1}, MK Jeong¹, SJ Kwon¹, MH Bae².*
¹Daejin University, Pocheon, Gyeonggi, KOREA; ²Hallym University, Chuncheon, Gangwon, KOREA.

(Session POS continues on next page)

PRELIMINARY

(Session POS continued from previous page)

5:04P – 5:06P

- 026 COMPARISON OF ALTERNATE PHYSIOLOGICAL MOTION FILTERS FOR *IN VIVO* CARDIAC ARFI.
DM Giannantonio¹, BC Byram^{1}, GE Trahey¹.*
¹Duke University, Durham, NC, USA.

5:06P – 5:08P

- 033 DIAGNOSTIC PERFORMANCE OF FREEHAND ELASTOGRAPHY WITH STRAIN RATIO MEASUREMENT IN THE CHARACTERIZATION OF BREAST LESIONS REFERRED FOR ULTRASOUND GUIDED BIOPSY: INITIAL CLINICAL RESULTS AT A SINGLE CANCER REFERRAL CENTER.
TR Kumm¹, A Chau¹, M Szabunio^{1}.*
¹H. Lee Moffitt Cancer Center & Research Institute, Tampa, FL, USA.

5:08P – 5:10P

- 035 SOME OF THE FACTORS INFLUENCING THE HEEL PAD COMPRESSIBILITY INDEX (HPCI): A LITERATURE SEARCH.
S Matteoli^{1}, JE Wilhelm¹, S Torp-Pedersen².*
¹Technical University of Denmark, Lyngby, DENMARK; ²Frederiksberg Hospital, University of Copenhagen, Frederiksberg, DENMARK.

5:10P – 5:12P

- 052 GEOMETRIC MEASURE OF DEFORMATION – A MEASURE OF TISSUE ELASTIC PROPERTIES.
K Kumar^{1}, ME Andrews², V Jayashankar¹, AK Mishra², S Suresh³.*
^{1,2}Indian Institute of Technology Madras, Chennai, Tamilnadu, INDIA; ³Mediscan Systems, Chennai, Tamilnadu, INDIA.

5:12P – 5:14P

- 054 SEGMENTATION OF COLOR ELASTOGRAM FOR BETTER LESION DELINEATION AND DIAGNOSIS.
K Kumar^{1}, V Jayashankar¹, S Suresh².*
¹Indian Institute of Technology Madras, Chennai, Tamilnadu, INDIA; ²Mediscan Systems, Chennai, Tamilnadu, INDIA.

5:14P – 5:16P

- 063 TEMPORAL AND SPATIAL STABILITY OF ACOUSTIC RADIATION FORCE-DRIVEN SHEAR WAVE VELOCIMETRY IN MYOCARDIAL TISSUE *IN VIVO*.
R Bouchard^{1}, SJ Hsu¹, V Subramanian¹, PD Wolf¹, GE Trahey¹.*
¹Duke University, Durham, NC, USA.

5:16P – 5:18P

- 077 TWO-STEP DETECTION OF DISPLACEMENT FOR ELASTOGRAPHY USING GRAPH CUT.
N Akazawa¹, S Ozawa^{1}, K Okubo¹, N Tagawa¹.*
¹Tokyo Metropolitan University, Tokyo, JAPAN.

5:18P – 5:20P

- 092 A COARSE-TO-FINE APPROACH FOR ELASTICITY IMAGING AND ITS REAL-TIME IMPLEMENTATION IN A LOW COST ULTRASOUND SCANNER.
YJ Zhou^{1,2}, YP Zheng^{1,2}, ZM Huang¹.*
^{1,2}The Hong Kong Polytechnic University, Hong Kong, CHINA.

5:20P – 5:22P

- 104 SPECKLE TRACKING UNDER CONDITIONS OF SMALL KERNEL TO SPECKLE SIZE RATIO.
F Kremer^{1}, M Larsson^{1,2}, HF Choi¹, P Claus¹, J D'hooge¹.*
¹Katholieke Universiteit Leuven, Leuven, BELGIUM; ²School of Technology and Health, Stockholm, SWEDEN.

(Session POS continues on next page)

PRELIMINARY

(Session POS continued from previous page)

5:22P – 5:24P

- 106 REAL TIME ULTRASOUND BREAST ELASTOGRAPHY – CLINICAL EXPERIENCE WITH DIFFERENT ULTRASOUND MANUFACTURERS' EQUIPMENT – WORK IN PROGRESS.
WE Svensson^{1}, R Williamson¹, N Zaman¹, L North¹, O Doryforou¹, S Putturaya¹.*
¹Imperial College Healthcare NHS Trust, Charing Cross Hospital, London, England, UK.

5:24P – 5:26P

- 108 ELASTOGRAPHY ON GENERAL PURPOSE GRAPHICS PROCESSING UNIT (GPGPU) FOR REAL-TIME APPLICATIONS.
X Yang¹, S Deka¹, R Righetti^{1}.*
¹Texas A&M University, College Station, TX, USA.

5:26P – 5:28P

- 109 PERFORMANCE ANALYSIS OF NEW LSE-BASED TIME CONSTANT ESTIMATORS FOR POROELASTOGRAPHY APPLICATIONS.
S Nair¹, TA Krouskop², R Righetti^{1}.*
¹Texas A&M University, College Station, TX, USA; ²National Center for Human Performance, Houston, TX, USA.

5:28P – 5:30P

- 110 THE FEASIBILITY OF USING ULTRASOUND ELASTOGRAPHY TECHNIQUES TO IMPROVE VISUALIZATION OF BONE STRUCTURE.
B Parmar¹, R Righetti^{1}, E Tasciotti², M Ferrari².*
¹Texas A&M University, College Station, TX, USA; ²The University of Texas Health Science Center at Houston, Houston, TX, USA.

5:30P – 5:32P

- 114 AXIAL-SHEAR STRAIN DISTRIBUTIONS IN BEEF MUSCLE SAMPLES UNDER LOAD: AN *IN VITRO* STUDY.
A Thitai Kumar¹, B Galaz^{1}, R Miller², J Ophir¹.*
¹The University of Texas Health Science Center at Houston, Houston, TX, USA; ²Texas A&M University, College Station, TX, USA.

- 040 IMPROVEMENT OF STRAIN UNIFORMITIES IN ELASTOGRAPHY BY INSERTION OF DAMPER.
T Sato^{1}, S Sato¹, Y Watanabe¹, S Goka¹, H Sekimoto¹.*
¹Tokyo Metropolitan University, Hachioji, Tokyo, JAPAN.

- 087 2ND REPORT ON PROPER POINT SPREAD FUNCTION FOR LATERAL MODULATION.
C Sumi^{1}, K Shimizu¹, Y Takanashi¹, Y Tadokoro¹, Y Nozaki¹.*
¹Sophia University, Chiyodaku, Tokyo, JAPAN.

- 105 IS REAL-TIME ELASTOGRAPHY TARGETED BIOPSY ABLE TO ENHANCE PROSTATE CANCER DETECTION? ANALYSIS OF DETECTION RATE BASED ON AN ELASTICITY SCORING SYSTEM.
L Pallwein^{1}, F Aigner¹, R Faschingbauer¹, E Pallwein¹, G Pinggera², G Bartsch², G Schaefer³, P Struve¹, F Pedross⁴, W Jaschke¹, F Frauscher¹.*
^{1,2,3,4}Medical University Innsbruck, AUSTRIA.

5:32P – 6:00P Discussion

Monday 6:00P – 8:00P
Opening Dinner Reception *Proceedings Book Signing*

Conference Room 2 & Foyer

PRELIMINARY

Tuesday, September 15

7:00A – 10:00P

7:00A – 8:00A

GROUP BREAKFAST

Restaurant

7:00A – 5:00P

Registration Desk Open

Conference Foyer

8:00A – 5:00P

Session POS: Posters

Conference Room 2

Session EEX: Equipment Exhibit

Conference Room 2

9:00A – 9:30A

Tourist Information

To Be Announced

Tuesday

8:00A – 8:15A

OPENING REMARKS

KJ Parker, J Ophir, CL de Korte

Lecture Hall

Tuesday

8:15A – 10:00A

Session CAA-1: Clinical and Animal Applications – I

Chair: D Cosgrove, UK

Co-Chair: A Săftoiu, Romania

Lecture Hall

8:15A – 8:30A

085 VIBRO-ELASTOGRAPHY IMAGING OF THE PROSTATE.

SE Salcudean^{1}, X Wen¹, SS Mahdavi¹, WJ Morris², I Spadinger².*

¹University of British Columbia, Vancouver, BC, CANADA; ²Vancouver Cancer Centre, BC Cancer Agency, Vancouver, BC, CANADA.

8:30A – 8:45A

031 CLINICAL APPLICATIONS OF ELASTOGRAPHY IN ROUTINE SYMPTOMATIC BREAST ULTRASOUND.

S Putturaya^{1}, WE Svensson¹, V Stewart¹, K Satchithananda¹, R Williamson¹, N Zaman¹, N Barrett¹, S Comitis¹, A Gupta¹.*

¹Charing Cross Hospital, London, England, UK.

8:45A – 9:00A

012 USE OF SONOGRAPHIC ELASTOGRAPHY IN SUPERFICIAL SOFT TISSUE INFECTION.

RJ Gaspari¹, D Blehar¹, M Mendoza^{1}, C Moon¹, D Polan¹.*

¹University of Massachusetts, Worcester, MA, USA.

9:00A – 9:15A

025 MAGNETIC RESONANCE ELASTOGRAPHY (MRE) OF THE KIDNEY IN HEALTHY VOLUNTEERS.

R Souchon^{1}, M Bouhrara¹, G Pagnoux², JM Ménager³, RL Ehman⁴, O Rouvière^{1,2}.*

¹INSERM, Lyon, FRANCE; ²Hôpital E. Herriot, Lyon, FRANCE; ³IRM du Tonkin, Villeurbanne, FRANCE; ⁴Mayo Clinic, Rochester, MN, USA.

9:15A – 9:30A

020 FIBROSCAN® IN HEPATOLOGY: A REVIEW.

L Sandrin^{1}, C Fournier¹, M Beaugrand², V Miette¹.*

¹Echosens, Paris, FRANCE; ²Hopital Jean Verdier, Bondy, FRANCE

9:30A – 9:45A

006 HAND-HELD ULTRASOUND ELASTOGRAPHY FOR GUIDING LIVER ABLATIONS PRODUCED USING A TOROIDAL HIFU TRANSDUCER.

J Chenot^{1,2}, D Melodelima^{1,2}, R Souchon^{1,2}, JY Chapelon^{1,2}.*

¹Inserm, Lyon, FRANCE; ²University of Lyon, Lyon, FRANCE.

(Session CAA-1 continues on next page)

PRELIMINARY

(Session CAA-1 continued from previous page)

9:45A – 10:00A

098 INTRAOPERATIVE CHARACTERIZATION OF THE MECHANICAL BEHAVIOR OF HUMAN LIVER.

M Hollenstein¹, M Jabareen^{1,2}, S Breitenstein³, M Riener³, PA Clavien³, M Bajka³, E Mazza^{1}.*

¹Swiss Federal Institute of Technology, Zurich, SWITZERLAND; ²Technion – Israel Institute of Technology, Haifa, ISRAEL; ³University Hospital Zurich, Zurich, SWITZERLAND.

10:00A – 10:30A

COFFEE BREAK

Conference Foyer

Tuesday 10:30A – 11:30A

Session FIP: Forward and Inverse Problems

Chair: *I Sack, Germany*

Co-Chair: *T Alrefae, Kuwait*

Lecture Hall

10:30A – 10:45A

065 MODEL-BASED ESTIMATION OF WAVE SPEED FOR THE SCALAR WAVE EQUATION.

J Fehrenbach^{1}, V Miette², L Sandrin².*

¹Institut de Mathematiques de Toulouse, Toulouse, FRANCE; ²Echosens, Paris, FRANCE.

10:45A – 11:00A

010 VARIATIONAL MESH ADAPTION IN ELASTICITY IMAGING OF SOFT TISSUE.

A Arnold^{1}, OT Bruhns¹, J Mosler².*

¹Ruhr–University Bochum, Bochum, GERMANY; ²GKSS Research Centre Geesthacht, Geesthacht, GERMANY.

11:00A – 11:15A

061 THE EFFECTS OF THE BOUNDARY CONDITIONS AND SHAPE OF EXCITATION ON THE PHASE SPEED AND INVERSE PROBLEM SOLUTION.

A Baghani^{1}, SE Salcudean¹, R Rohling¹.*

¹University of British Columbia, Vancouver, BC, CANADA.

11:15A – 11:30A

030 LINEAR ELASTIC MATERIAL RECONSTRUCTIONS OF NON-LINEARLY ELASTIC MRE PHANTOMS.

IM Perreard^{1}, AJ Pattison², MDJ McGarry², PR Perrinez², Z Barani³, EEW Van Houten³, JB Weaver¹, KD Paulsen².*

¹Dartmouth–Hitchcock Medical Center, Lebanon, NH, USA; ²Dartmouth College, Hanover, NH USA; ³University of Canterbury, Christchurch, NEW ZEALAND.

11:30A – 1:00P

GROUP LUNCH

Restaurant

Tuesday 1:00P – 3:00P

Session MIP-1: Methods for Imaging Elastic Tissue Properties – I

Chair: *L Sandrin, France*

Co-Chair: *SA McAleavey, USA*

Lecture Hall

1:00P – 1:15P

017 ACCURACY OF ENDOSCOPIC ULTRASOUND ELASTOGRAPHY USED FOR THE DIFFERENTIAL DIAGNOSIS OF CHRONIC PANCREATITIS AND PANCREATIC CANCER: A MULTICENTRIC STUDY.

A Săftoiu^{1}, P Vilmann², F Gorunescu³, U Will⁴, M Giovannini⁵, J Janssen⁶, J Iglesias-Garcia⁷, P Arcidiacono⁸, M Hocke⁹, C McKay¹⁰, DI Gheonea¹.*

^{1,3}University of Medicine and Pharmacy Craiova, Dolj, ROMÂNIA; ²Gentofte University Hospital, Hellerup, DENMARK; ⁴SRH Wald–Klinikum, Gera, GERMANY; ⁵Paoli–Calmettes Institut, Marseilles, FRANCE; ⁶HELIOS Klinikum, Wuppertal, GERMANY; ⁷University Hospital, Santiago de Compostela, SPAIN; ⁸University Vita–Salute San Raffaele, Milan, ITALY; ⁹Friedrich–Schiller University, Jena, GERMANY; ¹⁰Glasgow Royal Infirmary, Glasgow, Scotland, UK.

(Session MIP-1 continues on next page)

PRELIMINARY

(Session MIP-1 continued from previous page)

1:15P – 1:30P

002 A HYBRID DISPLACEMENT ESTIMATION METHOD FOR STRAIN IMAGING.

L Chen^{1}, RJ Housden¹, GM Treece¹, AH Gee¹, RW Prager¹.*

¹University of Cambridge, Cambridge, England, UK.

1:30P – 1:45P

013 ELASTICITY MAP RECONSTRUCTION OF ATHEROSCLEROTIC PLAQUES BASED ON A SEGMENTATION-DRIVEN OPTIMIZATION PROCEDURE USING STRAIN MEASUREMENTS.

J Ohayon^{1,3}, S Le Floc^{h1}, P Tracqui¹, G Finet², AM Gharib³, RL Maurice⁴, G Cloutier^{4}, RI Pettigrew³.*

¹DynaCell, Grenoble, FRANCE; ²INSERM, Lyon, FRANCE; ³NIDDK, NIH, Bethesda, MD, USA;

⁴University of Montréal Hospital Research Center, Montréal, Québec, CANADA.

1:45P – 2:00P

014 SIGNATURES OF MULTIPLE SHEAR WAVE SCATTERING IN BRAIN MRE WAVE IMAGES.

S Papazoglou^{1}, D Klatt¹, J Braun², I Sack¹.*

^{1,2}Charité Berlin, Berlin, GERMANY.

2:00P – 2:15P

028 ESTIMATION OF DISPLACEMENT WAVEFORMS WITH TRANSIENT MR ELASTOGRAPHY.

R Souchon^{1}, R Salomir¹, D Lyonnet², JY Chapelon¹, O Rouvière^{1,2}.*

¹INSERM, Lyon, FRANCE; ²Hôpital E. Herriot, Lyon, FRANCE.

2:15P – 2:30P

032 NON INVASIVE ASSESSMENT OF COMPARTMENT PRESSURES BY ULTRASOUND: AN *IN VITRO* MODEL.

RM Sellei^{1}, SJ Hingmann¹, M Knobe¹, M de la Fuente², F Schmidt², K Radermacher², HC Pape¹.*

¹University Hospital RWTH Aachen, Aachen, GERMANY; ²Helmholtz Institute for Biomedical Engineering, Aachen, GERMANY.

2:30P – 2:45P

079 ELASTIC MODULUS IMAGING (EMI) FOR VISUALIZING THERMAL ABLATION ZONE: INITIAL EXPERIENCE IN A PORCINE MODEL.

J Jiang¹, C Brace^{2,3}, A Andreano², R DeWall^{1,3}, N Rubert¹, T Varghese^{1,3}, F Lee, Jr², TJ Hall^{1}.*

^{1,2}University of Wisconsin-Madison, Madison, WI, USA

2:45P – 3:00P

037 PERFORMANCE OF RF-BASED 2D STRAIN IMAGING TECHNIQUES IN DEFORMING STRUCTURES WITH LARGE SHEARING AND ROTATIONAL MOVEMENT.

RGP Lopata^{1}, MM Nillesen¹, HHG Hansen¹, JM Thijssen¹, CL de Korte¹.*

¹Radboud University Nijmegen Medical Center, Nijmegen, The NETHERLANDS.

3:00P – 3:30P

COFFEE BREAK

Conference Foyer

Tuesday 3:30P – 5:00P

Session INS: Instrumentation

Chair: V Egorov, USA

Co-Chair: R Souchon, France

Lecture Hall

3:30P – 3:45P

001 QUANTIFYING ACOUSTIC RADIATION FORCE IMPULSE-INDUCED DYNAMICS THROUGH OPTICAL METHODS: EXPERIMENTAL AND SIMULATION RESULTS.

RR Bouchard^{1}, JE Streeter^{2,3}, ML Palmeri¹, PA Dayton^{2,3}.*

¹Duke University, Durham, NC, 27708, USA; ²University of North Carolina at Chapel Hill, ³North Carolina State University, Chapel Hill, NC, 27599, USA.

(Session INS continues on next page)

PRELIMINARY

(Session INS continued from previous page)

3:45P – 4:00P

038 3D RADIATION DOSIMETRY: DOSE READ-OUT OF GELS WITH SHEAR WAVE ELASTOGRAPHY.

RA Crescenti¹, JC Bamber^{1}, NL Bush¹, S Webb¹.*

¹Institute of Cancer Research and Royal Marsden NHS Foundation Trust, Sutton, Surrey, UK.

4:00P – 4:15P

053 PHYSICAL BASIS FOR TYPICAL ELASTOGRAPHIC APPEARANCE OF CYSTIC LESIONS – 75 PHANTOM BASED ANALYSIS.

K Kumar^{1}, ME Andrews², V Jayashankar¹, S Suresh³, AK Mishra².*

^{1,2}Indian Institute of Technology Madras, Chennai, Tamilnadu, INDIA; ³Mediscan Systems, Chennai, Tamilnadu, INDIA.

4:15P – 4:30P

060 A HIGH FRAME RATE ULTRASOUND SYSTEM FOR THE STUDY OF TISSUE MOTIONS.

A Baghani^{1}, SE Salcudean¹, R Rohling¹.*

¹University of British Columbia, Vancouver, BC, CANADA.

4:30P – 4:45P

078 IMPROVED 2D MOTION TRACKING FOR ELASTOGRAPHY USING DUAL TRANSDUCERS.

JM Abeysekera^{1}, R Rohling¹.*

¹University of British Columbia, Vancouver, British Columbia, CANADA.

4:45P – 5:00P

094 SIMULTANEOUS ULTRASOUND B-MODE IMAGING AND ELASTICITY MEASUREMENT USING VIBRATION BASED ON A CONVENTIONAL ULTRASOUND SCANNER.

YP Zheng^{1,2}, ZM Huang¹, YJ Zhou^{1,2}, JF He¹, JCW Cheung¹.*

^{1,2}The Hong Kong Polytechnic University, Hong Kong, CHINA.

5:00P – 7:00P

No Conference Activities

Tuesday

7:00P – 10:00P

Conference Dinner & Musical Event

Proceedings Book Signing

Lecture Hall
Announcement of Student Best Paper Award Recipients

Wednesday, September 16

7:00A – 6:30P

7:00A – 8:00A

GROUP BREAKFAST

Restaurant

7:00A – 5:30P

Registration Desk Open

Conference Foyer

8:00A – 5:30P

Session POS: Posters

Conference Room 2

Session EEX: Equipment Exhibit

Conference Room 2

Wednesday

8:00A – 9:45A

Session CVE: Cardiovascular Elasticity

Chair: BS Garra, USA

Co-Chair: EE Konofagou, USA

Lecture Hall

8:00A – 8:15A

009 A COMPENSATIVE MODEL FOR THE ANGLE DEPENDENCE OF MOTION ESTIMATES IN NON-INVASIVE VASCULAR ELASTOGRAPHY.

E Mercure¹, G Cloutier^{1,2,3}, RL Maurice^{1,2,3}.*

¹University of Montréal Hospital Research Center, Montréal, Québec, CANADA; ^{2,3}University of Montréal, Montréal, Québec, CANADA.

(Session CVE continues on next page)

PRELIMINARY

(Session CVE continued from previous page)

8:15A – 8:30A

039 LOCAL ARTERIAL STIFFNESS MEASUREMENT USING A HIGH FRAME RATE ULTRASOUND SYSTEM.

CZ Wang^{1}, YP Zheng^{1, 2}.*

^{1,2}Hong Kong Polytechnic University, Hong Kong, CHINA.

8:30A – 8:45A

041 3-D, HIGH VOLUME RATE, RAW AND DETECTED *IN VIVO* CARDIAC SPECKLE TRACKING: MOVEMENT TOWARDS OPTIMIZED STRAIN AND STRAIN RATE IMAGING.

BC Byram^{1}, G Holley², D Need², DM Giannantonio¹, GE Trahey¹.*

¹Duke University, Durham, NC, USA; ²Siemens Healthcare Sector, Mountain View, CA, USA.

8:45A – 9:00A

069 VALIDATION OF PULSE WAVE IMAGING (PWI) AS A QUANTITATIVE METHOD FOR MAPPING ARTERIAL ELASTICITY.

J Vappou^{1}, J Luo¹, EE Konofagou¹.*

¹Columbia University, New York, NY, USA.

9:00A – 9:15A

064 *IN VIVO* DIFFERENTIATION OF MYOCARDIAL ABLATION LESIONS VIA A STIFFNESS RATIO WITH ACOUSTIC RADIATION FORCE IMPULSE IMAGING.

SA Eyerly¹, SJ Hsu¹, GE Trahey¹, PD Wolf¹.

¹Duke University, Durham, NC, USA.

9:15A – 9:30A

103 MOTION TRACKING USING BINARY TECHNIQUES IN TMRI DATA.

T Alrefae^{1}, MD Alenezzy².*

¹Kuwait University, Khaldia, KUWAIT; ²University of Kansas, Lawrence, KS, USA.

9:30A – 9:45A

050 INCREASING THE ACCURACY OF NON-INVASIVE ESTIMATION OF SHEAR STRAIN IN THE ARTERIAL WALL.

T Idzenga^{1}, HHG Hansen¹, RGP Lopata¹, CL de Korte¹.*

¹Radboud University Nijmegen Medical Center, Nijmegen, THE NETHERLANDS.

9:45A – 10:15A

COFFEE BREAK

Conference Foyer

Wednesday 10:15A – 11:45A

Session SIP-1: Signal and Image Processing – I

Chair: GM Treece, UK

Co-Chair: JM Thijssen, The Netherlands

Lecture Hall

10:15A – 10:30A

011 IMAGE REGISTRATION IN ELASTICITY IMAGING: A FEASIBILITY STUDY.

A Costet¹, L Morris², WE Svensson^{2}, DW McRobbie².*

¹Imperial College London, London, England, UK; ²Imperial College Healthcare NHS Trust, London, England, UK.

10:30A – 10:45A

004 FREEHAND STRAIN IMAGE NORMALIZATION FOR CONVEX PROBES.

RJ Housden^{1}, AH Gee¹, GM Treece¹, RW Prager¹.*

¹University of Cambridge, Cambridge, England, UK.

10:45A – 11:00A

019 METHODS FOR THE ESTIMATION OF SUB-SAMPLE MOTION USING DIGITIZED ULTRASOUND ECHO SIGNALS IN THREE DIMENSIONS.

R Zahiri Azar^{1}, O Goksel¹, SE Salcudean¹.*

¹The University of British Columbia, Vancouver, BC, CANADA.

(Session SIP-1 continues on next page)

PRELIMINARY

(Session SIP-1 continued from previous page)

11:00A – 11:15A

021 STRAIN IMAGING OF BREAST USING TWO LINEAR ARRAY TRANSDUCERS.

MK Jeong^{1}, SJ Kwon¹, MH Bae².*

¹Daejin University, Pocheon, Gyeonggi, KOREA; ²Hallym University, Chuncheon, Gangwon, KOREA.

11:15A – 11:30A

082 LIVE ESTIMATION AND VISUALIZATION OF 4D×3D ULTRASOUND MOTION VECTORS.

ER Pospisil^{1}, R Zahiri Azar¹, R Rohling¹, SE Salcudean¹.*

¹The University of British Columbia, Vancouver, BC, CANADA.

11:30A – 11:45A

066 CROSS-INFORMATION ANALYSIS BETWEEN STRAIN AND RF SIGNALS FOR ULTRASOUND ELASTOGRAPHY.

K Miettinen¹, MM Doyley^{1}.*

¹University of Rochester, Rochester, NY, USA.

11:45A – 1:15P

GROUP LUNCH

Restaurant

Wednesday 1:15P – 2:30P

Session MPT-1: Mechanical Properties of Tissues – I

Chair: *G Cloutier, Canada*

Co-Chair: *R Sinkus, France*

Lecture Hall

1:15P – 1:30P

029 QUANTITATIVE CORNEA ELASTICITY MAPPING USING HIGH FREQUENCY SUPERSONIC SHEAR IMAGING.

M Tanter¹, JL Gennisson^{1}, D Touboul³, TM Nguyen¹, J Bercoff², M Fink¹.*

¹Laboratoire Ondes et Acoustique, ESPCI, Paris, FRANCE; ²SuperSonic Imagine, Aix en Provence, FRANCE; ³Hôpital Pellegrin, Bordeaux, FRANCE.

1:30P – 1:45P

096 BIAXIAL CHARACTERIZATION OF HUMAN FETAL MEMBRANES.

J Egger^{1}, A Mallik², C Haller², M Jabareen³, A Zisch², E Mazza¹.*

¹Swiss Federal Institute of Technology, Zurich, SWITZERLAND; ²University Hospital, Zurich, SWITZERLAND; ³Technion – Israel Institute of Technology, Haifa, ISRAEL.

1:45P – 2:00P

005 MEASURING THE NONLINEAR ELASTIC PROPERTIES OF LIVER TISSUES *IN VITRO* AND *EX VIVO*.

J Chenot^{1,2}, D Melodelima^{1,2}, JY Chapelon^{1,2}.*

¹Inserm, U556, Lyon, FRANCE; ²University of Lyon, Lyon, FRANCE.

2:00P – 2:15P

023 THERMAL EFFECTS ON MUSCULAR SHEAR MODULUS ASSESSED BY ULTRASOUND.

E Sapin¹, JL Gennisson^{1}, M Pernot¹, M Tanter¹, M Fink¹.*

¹Laboratoire Ondes et Acoustique, ESPCI, Paris, FRANCE.

2:15P – 2:30P

093 MENSTRUAL CYCLE, SITE AND INDIVIDUAL DEPENDENCES OF BREAST ELASTICITY MEASURED *IN VIVO* USING ULTRASOUND INDENTATION.

JW Li¹, ST Chan¹, YP Huang¹, YP Zheng^{1,2}.*

^{1,2}The Hong Kong Polytechnic University, Hong Kong, CHINA.

PRELIMINARY

Wednesday

2:30P – 3:45P

Session MIP–2: Methods for Imaging Elastic Tissue Properties – II

Chair: TJ Hall, USA

Co-Chair: MM Doyley, USA

Lecture Hall

2:30P – 2:45P

083 SHEAR MODULUS IMAGING OF LIVER USING SPATIALLY MODULATED ULTRASOUND RADIATION FORCE.

SA McAleavey^{1}, E Elegbe², M Menon³.*

¹University of Rochester, Rochester, NY, USA.

2:45P – 3:00P

072 ON THE FEASIBILITY OF LONGITUDINAL WAVE VISCOELASTICITY IMAGING.

H Eskandari^{1}, A Baghani¹, SE Salcudean¹, R Rohling¹.*

¹University of British Columbia, Vancouver, BC, CANADA.

3:00P – 3:15P

067 ON THE IMAGING OF SLIP BOUNDARIES USING 3D ELASTOGRAPHY.

L Garcia^{1}, C Uffl¹, J Fromageau¹, J Bamber¹.*

¹Institute of Cancer Research, Sutton, Surrey, England, UK.

3:15P – 3:30P

045 AXIAL–SHEAR STRAIN DISTRIBUTIONS IN AN ELLIPTICAL INCLUSION MODEL (PART I): A SIMULATION STUDY.

B Galaz¹, A Thitai Kumar¹, J Ophir^{1}.*

¹The University of Texas Health Science Center Houston, Houston, TX, USA.

3:30P – 3:45P

046 AXIAL–SHEAR STRAIN DISTRIBUTIONS IN AN ELLIPTICAL INCLUSION MODEL (PART II): EXPERIMENTAL VALIDATION AND *IN VIVO* EXAMPLES WITH IMPLICATIONS TO BREAST TUMOR CLASSIFICATION.

A Thitai Kumar¹, B Galaz¹, J Ophir^{1}.*

¹The University of Texas Health Science Center Houston, Houston, TX, USA.

3:45P – 4:15P

COFFEE BREAK

Conference Foyer

Wednesday

4:15P – 5:30P

Session CAA–2: Clinical and Animal Applications – II

Chair: WE Svensson, UK

Co-Chair: H Feltovich, USA

Lecture Hall

4:15P – 4:30P

044 DIFFERENTIATION OF BENIGN AND MALIGNANT BREAST LESIONS BY MECHANICAL IMAGING: CLINICAL RESULTS.

V Egorov^{1}, T Kearney², SB Pollak³, C Rohatgi⁴, N Sarvazyan¹, S Airapetian¹, S Browning⁵, A Sarvazyan¹.*

¹Artann Laboratories, Trenton, NJ, USA; ²The Cancer Institute of New Jersey, New Brunswick, NJ, USA; ³Mercy Medical Center, Rockville Centre, NY, USA; ⁴The Breast Care Center & General Surgery Practice, Easton, PA, USA; ⁵New Jersey Institute of Technology, University Heights, Newark, NJ, USA.

4:30P – 4:45P

008 VIBRO–ELASTOGRAPHY OF THE PROSTATE: METHOD EVALUATION.

SS Mahdavi^{1}, M Moradi¹, X Wen¹, WJ Morris², SE Salcudean¹.*

¹University of British Columbia, Vancouver, BC, CANADA; ²BC Cancer Agency, Vancouver, BC, CANADA.

(Session CAA–2 continues on next page)

PRELIMINARY

(Session CAA-2 continued from previous page)

4:45P – 5:00P

- 034 PERFORMANCE OF *EX VIVO* PROSTATE CANCER DETECTION USING 3D SONOELASTOGRAPHY.
B Castañeda^{1,2*}, *L An*², *J Yao*³, *L Baxter*³, *L Kushner*³, *J Joseph*³, *K Hoyt*⁴, *J Strang*³, *DJ Rubens*³,
*KJ Parker*².
¹Pontificia Universidad Católica del Perú, Lima, PERÚ; ²University of Rochester, Rochester, NY, USA; ³University of Rochester Medical Center, Rochester, NY, USA; ⁴University of Alabama at Birmingham, Birmingham, AL, USA.

5:00P – 5:15P

- 056 VIBROGRAPHY AND FREE HAND ELASTOGRAPHY FOR RESECTION OF GLIOMAS AND OTHER BRAIN TUMORS.
M Scholz^{1*}, *S Möller*¹, *J Thissen*¹, *C Löhnert*¹, *P Spangenberg*¹, *A Harders*¹.
¹Ruhr-University Bochum, GERMANY.

5:15P – 5:30P

- 059 MONITORING DEMYELINATING PROCESSES BY HIGH RESOLUTION MAGNETIC RESONANCE ELASTOGRAPHY IN THE MOUSE BRAIN.
*E Diquet*¹, *B Larrat*¹, *R Sinkus*^{1*}, *M Fink*¹.
¹Laboratoire Ondes et Acoustique, ESPCI, Paris, FRANCE.

Wednesday Group Photo

After 6:30P

5:30P – 6:30P

No Conference Activities

TBA

Thursday, September 17

7:00A – 10:00P

7:00A – 8:00A

GROUP BREAKFAST

Restaurant

7:00A – 3:45P

Registration Desk Open

Conference Foyer

8:00A – 3:45P

Session POS: Posters

Conference Room 2

Session EEX: Equipment Exhibit

Conference Room 2

Thursday 8:00A – 9:45A

Session MIP-3: Methods for Imaging Elastic Tissue Properties – III

Chair: *JC Bamber, UK*

Co-Chair: *JL Gennisson, France*

Lecture Hall

8:00A – 8:15A

- 102 ARFI MEASUREMENTS ON THE HUMAN UTERINE CERVIX USING A NOVEL INTRACAVITARY TRANSDUCER.

H Feltovich^{1*}, *L Reusch*¹, *J Dahl*², *ML Palmeri*², *JM Harter*¹, *M Kliewer*¹, *TJ Hall*¹.

¹University of Wisconsin-Madison, Madison, WI, USA; ²Duke University, Durham, NC, USA.

8:15A – 8:30A

- 055 VALIDATION OF MAGNETIC RESONANCE ELASTOGRAPHY WITH DIRECT MECHANICAL MEASUREMENT.

P Debergue^{1*}, *P Latta*², *V Pazos*¹, *C Bowman*².

¹National Research Council of Canada, Boucherville, Québec, CANADA; ²National Research Council of Canada, Winnipeg, Manitoba, CANADA.

8:30A – 8:45A

- 068 DEMONSTRATING MAGNETIC OPTICAL COHERENCE ELASTOGRAPHY (M-OCE).

A Grimwood^{1*}, *L Garcia*², *J Bamber*², *Q Pankhurst*¹, *J Holmes*³.

¹Royal Institution of Great Britain, England, UK; ²Institute of Cancer Research, Sutton, Surrey, England, UK; ³Michelson Diagnostics Limited, Orpington, Kent, England, UK.

(Session MIP-3 continues on next page)

PRELIMINARY

(Session MIP-3 continued from previous page)

8:45A – 9:00A

070 DYNAMIC VISCOELASTIC PROPERTIES OF SOFT TISSUES MEASURED BY HARMONIC MOTION IMAGING (HMI): PRELIMINARY RESULTS OBTAINED ON NORMAL AND CANCEROUS BREAST TISSUES.

J Vappou^{1}, C Maleke¹, EE Konofagou¹.*

¹Columbia University, New York, NY, USA.

9:00A – 9:15A

073 ITERATIVE RECONSTRUCTION OF TISSUE ELASTICITY AND VISCOSITY USING FINITE ELEMENTS.

H Eskandari^{1}, I Bell¹, SE Salcudean¹, R Rohling¹.*

¹University of British Columbia, Vancouver, BC, CANADA.

9:15A – 9:30A

018 THE ROLE OF REAL-TIME ELASTOGRAPHY IN THE NON-INVASIVE ASSESSMENT OF FIBROSIS IN DIFFUSE HEPATOPATHIES.

DI Gheonea^{1}, A Săftoiu¹, F Gorunescu², M Gorunescu³, T Ciurea¹.*

^{1,2}University of Medicine & Pharmacy, Craiova, Dolj, ROMÂNIA; ³University of Craiova, Craiova, ROMÂNIA.

9:30A – 9:45A

024 ULTRASOUND TRANSIENT ELASTOGRAPHY OF THE BRAIN: AN *IN VIVO* FEASIBILITY STUDY IN SMALL ANIMALS.

E Macé¹, I Cohen², JL Gennisson^{1}, R Miles², M Tanter¹, M Fink¹.*

¹Laboratoire Ondes et Acoustique, ESPCI, Paris, FRANCE; ²Cortex et Epilepsie, INSERM, Paris, FRANCE.

9:45A – 10:15A

COFFEE BREAK

Conference Foyer

Thursday 10:15A – 11:45A

Session CAA-3: Clinical and Animal Applications – III

Chair: W Weitzel, USA

Co-Chair: M Szabunio, USA

Lecture Hall

10:15A – 10:30A

015 INTRAVASCULAR ULTRASOUND PALPOGRAPHY AS AN IMAGING BIOMARKER IN CLINICAL TRIALS.

AFW van der Steen^{1}, JA Schaar¹, F Mastik¹, H Garcia¹, MG Danilouchkine¹, PW Serruys¹.*

¹Erasmus Medical Center, Rotterdam, The NETHERLANDS.

10:30A – 10:45A

090 SONORHEOMETRY FOR CLINICAL ASSESSMENT OF HEMOSTASIS.

WF Walker^{1,2,3}, X Lin-Schmidt¹, FW Mauldin¹, MB Lawrence^{1,3}, F Viola^{1,3}.*

^{1,2}University of Virginia, Charlottesville, VA, USA; ³HemoSonics, Charlottesville, VA, USA.

10:45A – 11:00A

075 TUMOUR SIZE MEASUREMENT OF BREAST CANCER USING ULTRASOUND ELASTOGRAPHY: A CLINICAL STUDY.

J Li¹, JA Noble¹, Y Chi^{1}, RE English², RF Adams², V Parulekar², JE Baldwin².*

¹University of Oxford, Oxford, England, UK; ²Oxford Radcliffe Hospitals NHS Trust, Oxford, England, UK.

11:00A – 11:15A

091 QUANTITATIVE VISUALIZATION OF MUSCLE MOTION USING ELASTOGRAPHY TECHNIQUE.

YJ Zhou^{1,2}, YP Zheng^{1,2}, JY Guo¹.*

^{1,2}The Hong Kong Polytechnic University, Hong Kong, CHINA.

(Session CAA-3 continues on next page)

PRELIMINARY

(Session CAA-3 continued from previous page)

11:15A – 11:30A

097 MEASUREMENT OF THE MECHANICAL RESPONSE OF THE VAGINAL WALL.

B Röhrnbauer^{1}, M Bajka², C Betschart², D Peruncchini², D Fink², E Mazza¹, D Scheiner².*

¹Swiss Federal Institute of Technology Zurich, Zurich, SWITZERLAND; ²University Hospital of Zurich, Zurich, SWITZERLAND.

11:30A – 11:45A

048 CHARACTERIZATION OF STRAIN DURING SIMULATED ANGIOPLASTY USING ULTRASOUND ELASTOGRAPHY.

WF Weitzel^{1}, PP Patel¹, R Biswas¹, DW Park¹, TJ Cichonski¹, MS Richards¹, JM Rubin¹, SH Phan¹.*

¹University of Michigan, Ann Arbor, MI, USA.

11:45A – 1:15P

GROUP LUNCH

Restaurant

Thursday 1:15P – 2:15P

Session MPT-2: Mechanical Properties of Tissues – II

Chair: AFW van der Steen, The Netherlands Co-Chair: YP Zheng, China

Lecture Hall

1:15P – 1:30P

058 *IN VITRO* CHARACTERIZATION OF MECHANICAL PROPERTIES OF HUMAN MESENCHYMAL STEM CELLS BY TIME-RESOLVED ACOUSTIC MICROSCOPY.

C Hildebrandt^{1}, W Bost¹, H Thielecke¹, RM Lemor¹.*

¹Fraunhofer Institut fuer Biomedizinische Technik, St. Ingbert, GERMANY.

1:30P – 1:45P

027 NON-INVASIVE LIVER FIBROSIS STAGING USING SUPERSONIC SHEAR IMAGING: A CLINICAL STUDY ON 150 PATIENTS.

E Bavu¹, JL Gennisson^{1}, BF Osmani², J Bercoff², M Fink¹, V Mallet³, P Sogni³, A Vallet-Pichard³, B Nalpas³, M Tanter¹, S Pol³.*

¹Laboratoire Ondes et Acoustique, ESPCI, Paris, FRANCE; ²SuperSonic Imagine, Aix en Provence, FRANCE; ³Hôpital Cochin, Paris, FRANCE.

1:45P – 2:00P

099 CHANGES OF MECHANICAL PROPERTIES OF ARTICULAR CARTILAGE WITH ENZYMATICALLY-INDUCED DEGRADATION DETECTED USING AN OCT-BASED AIR JET INDENTATION *IN VITRO*.

SZ Wang¹, YP Huang^{1}, YP Zheng^{1,2}.*

^{1,2}The Hong Kong Polytechnic University, Hong Kong, CHINA.

2:00P – 2:15P

100 *IN VIVO* MONITORING OF DIABETIC FOOT ULCER HEALING USING OCT AIR-JET INDENTATION.

CYL Chao^{1,4}, YP Zheng^{2,3}, YP Huang^{2}, GLY Cheing⁴.*

¹Queen Elizabeth Hospital, Hong Kong, CHINA; ^{2,3,4}The Hong Kong Polytechnic University, Hong Kong, CHINA.

Thursday 2:15P – 3:15P

Session SIP-2: Signal and Image Processing – II

Chair: SE Salcudean, Canada

Co-Chair: WF Walker, USA

Lecture Hall

2:15P – 2:30P

071 THE IMPACT OF PHASE ENCODING ON LATERAL DISPLACEMENT ESTIMATES.

S Korukonda^{1}, MM Doyley¹.*

¹University of Rochester, Rochester, NY, USA.

(Session SIP-2 continues on next page)

PRELIMINARY

(Session SIP-2 continued from previous page)

2:30P – 2:45P

086 APPLICATION OF 2D POLYNOMIAL FITTING TO BEAM STEERING FOR MOTION ESTIMATION WITH SUB-SAMPLE ACCURACY.

R Zahiri Azar^{1}, O Goksel¹, SE Salcudean¹.*

¹The University of British Columbia, Vancouver, BC, CANADA.

2:45P – 3:00P

088 PRELIMINARY EXPERIMENTS ON VIRTUAL SOURCE FOR LATERAL MODULATION.

C Sumi^{1}, N Matsui¹, K Shimizu¹, Y Takanashi¹.*

¹Sophia University, Chiyodaku, Tokyo, JAPAN.

3:00P – 3:15P

095 COMPARATIVE ANALYSIS OF TWO COMPOUNDING TECHNIQUES FOR IVUS PALPOGRAPHY.

MG Danilouchkine¹, F Mastik¹, AFW van der Steen^{1,2}.*

¹Erasmus Medical Center, Rotterdam, The NETHERLANDS; ²Interuniversity Cardiology Institute of The Netherlands, Utrecht, The NETHERLANDS.

3:15P – 3:45P

COFFEE BREAK

Conference Foyer

Thursday 3:45P – 5:15P

Session MIP-4: Methods for Imaging Elastic Tissue Properties – IV

Chair: A Sarvazyan, USA

Co-Chair: R Righetti, USA

Lecture Hall

3:45P – 4:00P

042 STUDY OF CONTRAST DETAILS OF HETEROGENEOUS PHANTOMS BASED ON CRAWLING WAVE SONOELASTOGRAPHY.

L An¹, DJ Rubens², YT Cho¹, Z Hah¹, KJ Parker^{1}.*

¹University of Rochester, Rochester, NY, USA; ²University of Rochester Medical Center, Rochester, NY, USA.

4:00P – 4:15P

051 RADIATION FORCE INDUCED CRAWLING WAVES.

Z Hah¹, YT Cho¹, CR Hazard², DJ Rubens³, KJ Parker^{1}.*

^{1,3}University of Rochester, Rochester, NY, USA; ²GE Global Research, Niskayuna, NY, USA.

4:15P – 4:30P

074 MEASURING THE EXTENT OF TIME-HARMONIC SHEAR DEFORMATION USING THE OCTAHEDRAL SHEAR STRAIN.

MDJ McGarry^{1}, EEW Van Houten², PR Perrinez¹, AJ Pattison¹, JB Weaver^{1,3}, KD Paulsen¹.*

¹Dartmouth College, Hanover, NH, USA; ²University of Canterbury, Christchurch, NEW ZEALAND;

³Dartmouth-Hitchcock Medical Center, Lebanon, NH, USA.

4:30P – 4:45P

080 A ROBUST REAL-TIME SPECKLE TRACKING ALGORITHM FOR ULTRASONIC ELASTICITY IMAGING.

J Jiang¹, TJ Hall^{1}.*

¹University of Wisconsin-Madison, Madison, WI, USA.

4:45P – 5:00P

076 HIGH QUALITY LATERAL STRAIN ESTIMATION USING TWO BEAM STEERING ANGLES.

HHG Hansen^{1}, RGP Lopata¹, T Idzenga¹, CL de Korte¹.*

¹Radboud University Nijmegen Medical Center, Nijmegen, The NETHERLANDS.

5:00P – 5:15P

089 A STUDY ON REGULATION FOR RECONSTRUCTION OF PHYSICAL QUANTITIES – MECHANICAL SOURCE AND THERMAL SOURCE/PERFUSION.

C Sumi^{1}, Y Takanashi¹, K Shimizu¹, R Yamashita¹, Y Ishii¹.*

¹Sophia University, Chiyodaku, Tokyo, JAPAN.

PRELIMINARY

5:15P – 7:00P

No Conference Activities

Thursday
Closing Dinner Reception

7:00P – 10:00P

Proceedings Book Signing

TBA

Session EEX: Equipment Exhibit

Conference Room 2

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