21st Annual Meeting of the European Association of Cardiovascular Imaging (EACVI), a registered branch of the ESC, in cooperation with the Portuguese Working Group of Echocardiography.

Advance Programme
as of 1st of August 2017

Lisbon - Portugal
6-9 December 2017

www.escardio.org/EACVI
Download the EuroEcho-Imaging 2017 Mobile App

Search for ‘EuroEcho2017’ in App Store® / Google play

www.escardio.org/EACVI
The European Association of Cardiovascular Imaging (EACVI), a registered brand of the ESC is a unified community gathering four imaging modalities under one entity (Echocardiography, Cardiovascular Magnetic Resonance, Nuclear Cardiology and Cardiac Computed Tomography).

The EACVI is the world’s leading network of cardiovascular imaging experts welcoming almost 10,000 professionals including cardiologists, sonographers, nurses, basic scientists and allied professionals.

Our mission: “To promote excellence in clinical diagnosis, research, technical development, and education in cardiovascular imaging in Europe.”

Visit EACVI stand and learn more about our initiatives.
WHO SHOULD ATTEND?

- Cardiologists
- Cardiac ultrasonographers
- Anaesthesiologists
- Nuclear Physicians
- Paediatric cardiologists

KEY FIGURES:

- 4 230+ Healthcare professionals from 90+ countries
- 380 Faculty, worldwide renowned experts
- 15+ Hands-on sessions
- 1 410+ Abstracts & Clinical Cases submitted
- 150+ Scientific sessions
- 1 500m²+ Exhibition area
- 4 days of scientific sessions

MAIN THEMES

Imaging in heart failure & Interventional imaging

PRACTICAL INFORMATION

Visit the congress website for information on:

- Travel to around Lisbon: Lisbon is easily accessible by plane with many flights from most of major European cities
- Hotels: A large choice in the city centre with easy access by public transport from 79€ per night!

VENUE

Centro de Congressos de Lisboa
Praça de Indústrias
1300-307 Lisbon, PT
CME - Continuing Medical Education

EuroEcho-Imaging 2017 is currently under review by the European Accreditation Council for Continuing Medical Education (EACCME) to provide CME activity for medical specialists.

The EACCME is an institution of the European Union of Medical Specialists (UEMS), www.uems.net.

REGISTRATION

REGISTER NOW AND SAVE!

<table>
<thead>
<tr>
<th></th>
<th>EARLY FEE 30 September 2017</th>
<th>LATE FEE 31 October 2017</th>
<th>LAST MINUTE From 1st November 2017</th>
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EACVI Members: Reduced fee for EACVI members only applies if membership is settled before the date of registration. The reduced fee for delegates who became EACVI member after registering will not apply.

(1) EACVI Member registration: An online version of the European Heart Journal - Cardiovascular Imaging is included in your EACVI 2017 Silver & Gold Membership. A Paper version of the journal is also included on the EACVI Gold Membership, for the others the Paper version can be purchased - for more information please contact: publications@escardio.org. Extra benefits for EACVI Members Silver & Gold includes discounted registration fees and members lounge access.

(2) Proof of status will be required for:
- Standard fee YOUNG: Applies to delegates under 38 years old and delegates under 40 years old who are currently in training. Copy of passport or ID card must be provided in both cases, along with a proof of your trainee status in the second case.
- Nurse/Sonographer: letter from the head of department, both signed and stamped, is necessary.
- e-Cardiology Working Group: proof of membership must be provided.

(3) Offer limited to the non-clinicians from the e-Cardiology Working Group only.

CME - Continuing Medical Education

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#euroecho www.escardio.org/EACVI
Course on Valvular Heart Disease (VHD)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Topics</th>
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| 09:00 - 10:30 | Aortic stenosis: from natural history to intervention | • Natural history: new perspectives for pharmacologic treatment?  
• Doppler-echo assessment of AS: tips and tricks.  
• The role of multi-modality imaging in aortic stenosis.  
• TAVI vs surgery in patients with intermediate and low surgical risk. |
| 11:00 - 12:30 | Primary mitral regurgitation: from genetics to intervention | • Genetics of mitral valve prolapse.  
• Doppler-echo quantitation of MR: tips and tricks.  
• Role of multimodality imaging in mitral regurgitation.  
• Perspectives on percutaneous interventions. |
| 14:00 - 15:30 | Valvular heart disease challenges in 2017           | • Ischemic MR: when and how to intervene?  
• Patient-prosthesis mismatch: is it still issue in the TAVI era.  
• Asymptomatic severe AS: early AVR or watchful waiting?  
• Secondary tricuspid regurgitation: should it be treated and how? |

Course on Diastolic Function

*Joint session with the American Society of Echocardiography (ASE)*

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<tr>
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| 09:00 - 10:30 | Assessment of diastolic function                             | • Assessment of diastolic function in the cath lab.  
• Mitral inflow, LA volumes, tissue Doppler velocities and PA pressures.  
• LV strain and twist and LA strain.  
• CMR and Nuclear techniques for diastolic function assessment. |
| 11:00 - 12:30 | Application of ASE/EACVI Guidelines to assess diastolic function and filling pressure in patients with dyspnea | • Guidelines for patients with HFrEF.  
• Guidelines for patients with HFpEF.  
• Diastolic stress test.  
• Assessment of LV filling pressure in primary pulmonary hypertension. |
| 14:00 - 15:30 | Application of ASE/EACVI guidelines to assess diastolic function and filling pressure in special populations | • Atrial fibrillation.  
• Hypertrophic cardiomyopathy (HCM).  
• Amyloidosis.  
• Mitral valve disease. |
Course on three-dimensional echocardiography

09:00 - 10:30  3D Echo for assessing the left ventricle - why and how?

- Tips, tricks and pitfalls of 3D analysis of the left ventricle.
- Multi-Vendor comparison of 3D software for volume and strain.
- Automation of 3D LV analysis - a step too far?
- Why and how to implement 3D echo in the routine of the echo lab.

11:00 - 12:30  3D Echo for assessing the right ventricle - how and why?

- What is the advantage of 3D RV evaluation?
- More than volumes and ejection fraction: shape and mechanics!
- Lessons learned about RV by using 3D echo - clinical cases.

14:00 - 15:30  Clinical use of 3D echo to assess ventricular geometry and function

- Why and how should we use 3D echo in: right heart disease.
- Why and how should we use 3D echo in: heart failure?
- Why and how should we use 3D echo in: heart valve diseases?
- Why and how should we use 3D echo in: cancer patients treated with potentially cardiotoxic drugs?

Course on multi-modality imaging in the cath lab: become an expert!

09:00 - 10:30  The aortic valve

- Imaging: before procedure and intra-procedural guidance.
- Imaging for follow-up – which techniques? Which strategies?
- The future is here: new devices & prosthesis, valve-in-valve, stroke prevention and more....

11:00 - 12:30  The mitral and tricuspid valves

- How to assess mitral valve regurgitation for intervention.
- Mitraclip selection and intraprocedure guidance with TEE.
- Imaging for early and late follow-up.
- What’s new? Valve-in-valve, transcatheter annuloplasty, TMVI and more. Will it work on the tricuspid valve?

14:00 - 15:30  PFO and LA appendage

- LA appendage closure: indications and role of TEE.
- LA appendage closure: role of CT and CMR.
- PFO closure: indications and role of imaging before the procedure.
- PFO closure: which modalities for guidance - is ICE that cool? Imaging for follow-up.
### Course on Transoesophageal Echocardiography (TOE)

#### 09:00 - 10:30 Preliminary TOE educational session. Let’s start!

- A comprehensive 2D -3D TOE study; from A to Z.
- LV function assessment.
- Prosthetic valves: echo challenges.
- Artifacts and Pitfalls.

#### 11:00 - 12:30 Intermediate difficulty TOE educational session. Deeper waters!

- 3D perspective for examination of mitral valve.
- Mitral valve surgery: Repair or replace?
- Hypertrophic obstructive cardiomyopathy: Resect or not to resect: That’s the question.
- Invasive Cardiology and TOE, a permanent relationship.

#### 14:00 - 15:30 Advanced difficulty TOE educational session. No frontiers!

- Mitraclip: how do I confirm a perfect placement through echocardiography guidance.
- TAVR vs SAVR: for whom and why?
- TEE determinants for assist device or transplant?
- Myocardial imaging: Is it only for research, or have we advanced for routine use?

### Course on Congenital Heart Disease (CHD)

#### 09:00 - 10:30 Tetralogy of Fallot

- Embryology, anatomy, pathology of normal and variations.
- Preoperative imaging: minimum dataset.
- Multimodality assessment during late follow up.
- Deformation imaging during follow-up: what role?

#### 11:00 - 12:30 Single ventricle

- Embryology, anatomy, anatomy-pathology.
- Advanced echo modalities in single ventricle: what role?
- MultiModality assessment at each stage.
- Imaging in follow-up of patients after Fontan repair.

#### 14:00 - 15:30 Arch abnormalities

- Embryology & anatomy.
- Optimal imaging for rings, slings and other things.
- Imaging of aortic arch obstruction in children and adults.
- Deformation imaging in arch abnormalities.
### Course on Cardiovascular Magnetic Resonance (CMR)

**09:00 - 10:30** Cardiovascular magnetic resonance starter kit

- Basic MR physics and safety in a nutshell.
- MR physics relevant for cardiac applications.
- Spotting and dealing with extracardiac incidental findings on CMR scans.
- When is CMR indicated: a multimodality imager’s perspective.

**11:00 - 12:30** Cardiovascular magnetic resonance assessment of structure and function

- CMR assessment of ventricular and atrial size, shape and function (including strainimaging).
- CMR assessment of myocardial fibrosis (including late gadolinium enhancement and T1 mapping).
- CMR assessment of flow (including 4D flow).
- CMR approaches to assess adult congenital heart disease.

**14:00 - 15:30** Cardiovascular magnetic resonance in guiding patient management

- CMR can guide management in heart failure.
- CMR can guide management in inpatients.
- CMR can guide management in suspected or known coronary artery disease.
- CMR can guide management in cardiomyopathies.

### Course on Computed Tomography (CT)

**09:00 - 10:30** Basic principles & applications

- Principles of cardiac CT: from photons to pictures.
- Scan protocols: maximum quality, minimal dose.
- Coronary CT angiography for stable angina: the evidence.
- Structural heart disease.

**11:00 - 12:30** Advanced techniques

- Complex coronary disease, stents and grafts.
- Myocardial infarction, perfusion and CT-based FFR.
- Plaque imaging for risk predictions.
- Hybrid imaging.

**14:00 - 15:30** Clinical implementation

- Acute chest pain and other emergencies.
- Complex structural heart conditions.
- Congenital conditions in kids and grown-ups.
- CT guided interventions: TAVI and beyond.
### Course on Nuclear Cardiology (NC)

<table>
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<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>09:00 - 10:30</td>
<td>Basics of nuclear imaging</td>
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</table>
|            | • Physics, radiotracers, instrumentation and how to do cardiac SPECT/PET.  
|            | • Stress- and imaging-protocols, radiation exposure and clinical examples.  
|            | • Image interpretation, pitfalls and artefacts and imaging examples.  
|            | • How to perform a clinically meaningful report and clinical examples.  
|            | • Discussion.                              |
| 11:00 - 12:30 | Nuclear imaging in ischemic heart disease |
|            | • Management of CAD: diagnosis and clinical decision making.  
|            | • Management of CAD: interactive clinical case.  
|            | • Heart failure: viability and innervation.  
|            | • Heart failure: Interactive clinical cases.  
|            | • Discussion.                              |
| 14:00 - 15:30 | Nuclear imaging in myocardial and vascular diseases |
|            | • Cardiomyopathies: diagnosis, risk stratification, treatment and interactive clinical case.  
|            | • Arrhythmias: risk stratification, ablation and interactive clinical case.  
|            | • Myocardial inflammation and infiltration and interactive clinical case.  
|            | • Radionuclide imaging in IE/CDRIE: diagnosis, treatment and interactive clinical case.  
|            | • Conclusion.                              |
### How-to Sessions

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<tr>
<th>Time</th>
<th>Session</th>
<th>Details</th>
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<tbody>
<tr>
<td>10:30 - 11:00</td>
<td>How to prepare for EACVI CMR certification exam</td>
<td>EACVI HIT (Heart Imagers of Tomorrow)</td>
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<tr>
<td>15:30 - 16:00</td>
<td>How to prepare for EACVI CMR certification exam</td>
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How-to session provides practical details and tools or tips and tricks on a specific topic related to the research. These sessions are built to help attendees to improve their experiences to complete successfully research project: from founding and grant application, to data analysis, results presentation and publication.

### Inaugural Session

<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Details</th>
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<tr>
<td>16:00 - 17:30</td>
<td>Inaugural Session</td>
<td>Featuring the Edler lecture</td>
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</table>
08:30 - 10:00 Main Session

**Imaging in the electrophysiology lab**

- Atrial fibrillation ablation: what we need to know before and after procedure.
- LA appendage occlusion: how we care?
- Imaging ventricular arrhythmias: a multimodality approach.
- Ventricular arrhythmia ablation: what we need to know before and after procedure.

08:30 - 10:00 Clinical Imaging

**Advances in ischemic heart disease: read with the experts**

- Implementing guidelines and recommendations into clinical practice.
- Imaging in the non invasive assessment of coronary lesions.
- Imaging in the assessment of myocardial viability.
- Dyslipidemia control - much more beyond statins.

08:30 - 10:00 Symposium

**Clinical use of 2D Speckle Tracking - Hopes and Facts**

- Lessons from the EACVI/ASE/Industry Inter-Vendor Study - Are all vendors equal?
- Assessment of layer strain - Does the concept hold true?
- Right ventricular strain - Better than classical parameters?
- Clinical evidence matters - When and how to use 2D speckle tracking today?

08:30 - 10:00 Teaching Course

**Basics of cardiac ultrasound**

- Physics, instrumentation and machine settings.
- The complete standard echo study.
- Common mistakes and pitfalls: how to avoid them.
- Facts or artifacts in 2D-Doppler echocardiography.

08:30 - 10:00 Symposium

**Cardiotoxicity in oncology: not only heart failure**

*Joint session with the Italian Society of Echocardiography and Cardiovascular Imaging (SIECVI)*

- Which drugs causes cardiotoxicity and how do we diagnose.
- Can we still use ejection fraction for guiding oncologic therapy?
- Biomarkers and cardiac imaging for detection of cardiotoxicity: the right balance.
- ESC guidelines on cancer therapy and cardiotoxicity: the place of cardiac imaging.
08:30 - 10:00  Symposium

**Heart failure: imaging matters**

*Joint session with the Heart Failure Association (HFA of the ESC)*

- Incorporating guidelines and recommendations into clinical practice.
- Systolic function in 2018: it's really about twisting and deformation.
- Diastolic function in 2018: it's really about suction and relaxation.
- Advances in pharmacological treatment.

08:30 - 10:00  Symposium

**Where clinicians and engineers look into the future**

- High frame rate imaging: technique and applications.
- Clinical value of high frame rate imaging.
- 3D printing: technique and applications.
- 3D printing of AV valves: its clinical value.

10:10 - 10:55  How-to Session

**How to analyze a CMR exam - Tips for beginners**

*EACVI HIT (Heart Imagers of Tomorrow)*

11:00 - 12:30  Main Session

**How to use cardiac imaging to discover early heart failure in cardiomyopathies?**

- Hypertrophic cardiomyopathy.
- Dilated cardiomyopathy.
- Arrhythmogenic cardiomyopathy.
- Non-compaction cardiomyopathy.

11:00 - 12:30  Clinical Imaging

**Imaging native and prosthetic valves: become a master**

- What do the 2017 ESC guidelines say.
- The EACVI approach on the assessment of valvular prostheses.
- Prosthetic valves and devices endocarditis.
- Percutaneous valves and devices: what’s new?
Thursday 7 December 2017
Morning Sessions

11:00 - 12:30  Debate Session

Is advanced assessment of LV function ready for prime time?

• Strain parameters are useful in the daily practice. PRO.
• Strain parameters are not ready for clinical decision making in the single patient. CON.
• LV fibrosis assessment using CMR: useful in the daily practice. PRO.
• LV fibrosis assessment using CMR: not ready for clinical decision making in the single patient. CON

11:00 - 12:30  Teaching Course

Basics of 2D cardiac assessment

• Left ventricular size and systolic function.
• Left ventricular diastolic function.
• Right ventricular size and function.
• Atrial size and function.

11:00 - 12:30  Symposium

The role of stress echocardiography in non-ischemic heart disease

Joint session with the Korean Society of Echocardiography (KSE)

• Valvular regurgitation.
• Valvular stenosis.
• Cardiomyopathies.
• Pulmonary arterial hypertension.

11:00 - 12:30  Symposium

Echocardiography to guide interventions – case-based session

Joint session with the Canadian Society of Echocardiography (CSE)

• The evolving role of echocardiography for new interventions for structural heart diseases.
• Echocardiography for percutaneous valve repair.
• Plugging the left atrial appendage.
• Echo in prosthetic valves: when it matters!

11:00 - 12:30  Symposium

Critical care echocardiography

EACVI HIT (Heart Imagers of Tomorrow)

• How to assess volume status by echo?
• How to evaluate shock by echo?
• Echo as a non-invasive Cath (CVP, PCWP).
• Echocardiography in cardiac arrest.
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<tr>
<td>14:00 - 15:30</td>
<td>Main Session</td>
<td><strong>Contemporary use of cardiac imaging in heart failure</strong></td>
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<td>• What are the best prognostic markers in heart failure - imaging markers vs other biomarkers.</td>
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<td>• When and how to image patients with hypertensive disease?</td>
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<td>• Imaging in athletes - how to identify heart failure and when to stop exercise?</td>
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<td>• How to use cardiac imaging for therapeutic guidance in heart failure.</td>
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<td>14:00 - 15:30</td>
<td>Clinical Imaging</td>
<td><strong>Advances in the cath lab I</strong></td>
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<td>• Incorporating guidelines and recommendations into clinical practice.</td>
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<td>• Imaging during the procedure: what the interventional cardiologist wants to know?</td>
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<td>• Show me five complications I should never miss!</td>
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<td>• Old and new percutaneous aortic valves and devices.</td>
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<td>14:00 - 15:30</td>
<td>Symposium</td>
<td><strong>Do you understand CRT?</strong></td>
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<td>• Modelling LV mechanics. - How to link load, delay and deformation?</td>
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<td>• Standards and options - How to predict and measure CRT success?</td>
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<td>• Patterns of motion and deformation - What can they add?</td>
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<td>• ECG, echo and more - How to characterize the perfect patient?</td>
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<td>14:00 - 15:30</td>
<td>Teaching Course</td>
<td><strong>Valvular heart disease I</strong></td>
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<td>• Mitral stenosis.</td>
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<td>• Mitral regurgitation.</td>
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<td>• Aortic stenosis.</td>
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<td>• Aortic regurgitation.</td>
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<td>14:00 - 15:30</td>
<td>Symposium</td>
<td><strong>Putting the right perspective on speckle tracking strain, is it all about</strong></td>
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<td><em>Joint session with the Turkish Working Group of Cardiac Imaging</em></td>
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<td>• What does strain tell us in ischemic heart disease?</td>
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<td>• Left atrial strain: why do we need it?</td>
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<td>• Strain in dyssynchrony: what is relevant?</td>
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<td>• What is the additive role of assessing diastolic strain?</td>
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14:00 - 15:30  Symposium

The fantastic 4: the 4 best papers of my journal in 2017

- Circulation cardiovascular imaging.
- Journal of the American College of Cardiology Imaging.
- Journal of the American Society of Echocardiography.
- European Heart Journal-Cardiovascular Imaging.

14:00 - 15:30  Symposium

Aortic regurgitation and the aorta

Joint session with the Saudi Heart Association (SHA)

- Natural history of the bicuspid aortic valve.
- Pitfalls in quantifying aortic valve stenosis in case of bicuspid valve.
- Pitfalls in quantifying aortic valve regurgitation in case of bicuspid valve.
- How to follow a patient with a dilated aorta.

15:40 - 16:25  How-to Session

How to write a good abstract

EACVI HIT (Heart Imagers of Tomorrow)

16:30 - 18:00  Main Session

Cardiac resynchronization therapy: how to get the best out of the device

- How imaging may increase implantation success rates?
- How to use imaging PRE-CRT?
- Should we guide the leads implantation?
- How to perform the follow-up?

16:30 - 18:00  Clinical Imaging

Advances in the cath lab II

- Echo before the mitral intervention - what should the echo report include?
- Cases percutaneous devices: why was this one chosen?
- Show me what I need to do during the procedure.
- When things go wrong, echo saves the day!
- Old and new mitral & tricuspid valves and devices.
16:30 - 18:00  Debate Session

**Imaging Heart failure: bloody session**

*Mobile App Interactive Session*

- First round: CT/Nuclear is the best.
- Second round: CMR is required.
- Third round: Echo is enough.
- Open “free fight”.

16:30 - 18:00  Teaching Course

**Valvular heart disease 2**

- Standard echo examination of prosthetic valves.
- Prosthetic valve pathologies.
- Right-sided valve diseases.
- Native valve endocarditis.

16:30 - 18:00  Symposium

**Hot topics in valvular heart disease**

*EACVI HIT (Heart Imagers of Tomorrow)*

- 3D echocardiography of the tricuspid valve.
- CMR evaluation of myocardial fibrosis in valvular heart disease.
- Multimodality imaging in preprocedural assessment for TAVR.
- Multimodality imaging in bicuspid aortic valve and aortopathy.

16:30 - 18:00  Symposium

**Computing in Echocardiography and multimodality imaging**

- Cardiac mechanics and hemodynamics - behind the scene.
- Echocardiographic apps - smart phone-assisted point-of-care decision making.
- EduCAD - web-based educational tool for training in multimodality.
- Remote echocardiography and web-based assessment - the new era.

16:30 - 18:00  Symposium

**Congenital heart disease: heart failure and transplantation**

- Heart failure in CHD: Imaging markers of recovery.
- Pre and post transplant imaging and decision making.
- Imaging for CRT in congenital heart disease.
- Diastolic dysfunction in ACHD?
- Which criteria should we use?
### Intervention on the atrioventricular valves

- All the mitral valve suitable for percutaneous repair?
- Tricuspid valve and the percutaneous interventions.
- Imaging techniques for implanting the devices.
- Imaging for the AtrioVentricular percutaneous prosthesis.

### Advances in the EP lab I. When the cardiac imager meets the electrophysiologist: focus on atrial fibrillation

- Incorporating ESC guidelines and EACVI recommendations into clinical practice.
- Imaging and AF ablation: conventional methods and beyond.
- Imaging and LA appendage closure –what images and measurements to the interventionalist?
- Coagulation, new oral anticoagulation and new contra-anticoagulation.

### Tricuspid valve in 2017: no longer forgotten

*Joint session with the Working Group of Echocardiography of the German Cardiac Society*

- Imaging the tricuspid valve: state of the art.
- Quantification and pathophysiology of tricuspid regurgitation.
- Surgical solution to TR.
- Transcatheter therapy for TR.

### Advanced echo techniques I: quantitation of cardiac function and mechanics

- Myocardial fibers and cardiac mechanics.
- Tissue Doppler and 2D speckle-tracking.
- 3D deformation.
- Intraventricular mechanical dyssynchrony and dispersion.

### The best of 2017 HIT: multimodality predictors of clinical hot points

*EACVI HIT (Heart Imagers of Tomorrow)*

- Toxicity: multimodality analysis of chemotherapy induced cardiac damage.
- Arrhythmias: multimodality predictors of malignant arrhythmias.
- CRT: multimodality predictors of CRT responders.
- Infarction: multimodality predictors of functional recovery after AMI.
Friday 8 December 2017
Morning Sessions

08:30 - 10:00 Symposium

Prosthetic valve endocarditis, diagnostics challenges and solutions

Joint session with the the Nordic Working Group on Echocardiography

• Prosthetic valve endocarditis: Scope of the problem and challenges.
• What imaging modalities can help TEE? ICE? CT? PET-CT?
• The optimal diagnostic algorithm for prosthetic valve endocarditis?
• The use of PET-CT in endocarditis.

08:30 - 10:00 Symposium

Imaging predictors for outcome

• Fetal markers of postnatal outcome: borderline left heart.
• Imaging for risk stratification for SCD in tetralogy of Fallot.
• Ebstein: before and after cone operation: case selection.
• Imaging predictors for outcome in systemic RV.

10:00 - 11:00 Special Session

Hightech corner session I
Session focusing on the most up-to-date technology

• Challenges and opportunities in image based modeling and simulation of the heart—Can echo help?
• Discussion/Q&A.
• Patient specific modeling in LBBB patients: from MRI to in-silicon models.
• Discussion/Q&A.
• Prediction of cardiac resynchronization therapy outcome through the analysis of the 3D coronary sinus lead tip trajectory.
• Discussion/Q&A.

10:10 - 10:55 How-to Session

How to stay updated on cardiovascular imaging

EACVI HIT (Heart Imagers of Tomorrow)

11:00 - 12:30 Main Session

Imaging and Transcatheter Aortic Valve Replacement (TAVR)

• Multi-modality imaging for patient selection.
• Imaging during the procedure.
• Periprosthetic regurgitation assessment.
• How to deal with remaining symptoms following TAVR?
11:00 - 12:30  Clinical Imaging

Advances in the EP lab II. When the cardiac imager meets the electrophysiologist: focus on ventricular arrhythmias and dysfunction

- Incorporating guidelines and recommendations into clinical practice.
- Imaging in ischemic and non-ischemic cardiomyopathies: anatomical substrate assessment.
- Imaging in the selection and programming of CRT.
- Machines in our hearts: old and new electrical devices.

11:00 - 12:30  Debate Session

Dr Jeckyll and Mr Hyde

- Invasive coronary angiography.
- Helpful in every patient, useless in many patients.
- Cancer treatment-related cardiotoxicity.
- Echocardiography is all I need. I need multi-modality imaging.

11:00 - 12:30  Teaching Course

Advanced echo techniques II: basics, indications, protocols and interpretation

- 2D/3D transesophageal echocardiography.
- Stress echocardiography in ischemic heart disease.
- Stress echocardiography in nonischemic heart disease.
- Contrast echocardiography.

11:00 - 12:30  Symposium

Pericardial Imaging state of mind

Joint session with the American Society of Echocardiography (ASE)

- Physiopathology of pericardial disease: what we learn from imaging?
- Acute pericardial disease: role of multimodality imaging.
- Recurrent pericardial disease: do we need imaging to avoid it?
- Constrictive pericardial disease: a difficult diagnosis, a complex entity.

11:00 - 12:30  Symposium

Echocardiography in the intensive care unit. From acute heart failure to cardiogenic shock

Joint session with the Working Group on Echocardiography and other Imaging modalities of the Romanian Society of Cardiology

- Role of echocardiography in the acute heart failure guidelines 2016.
- Left ventricular systolic function in the acute setting: which parameters to follow?
- Acute right ventricular failure: from imaging to treatment.
- IABP, Impella ECMO or what else?
Friday 8 December 2017
Morning Sessions

11:00 - 12:30 Debate Session

**Congenital heart disease - Imaging for the 21st century**

*Joint session with the American Society of Echocardiography (ASE)*

- Has advanced multimodality imaging had any effect on patient’s outcome?
- Are «Congenital heart disease imaging specialists» value for money?
- 3D imaging across the modalities and future directions.
- Journey from translational research to standardisation guidelines
14:00 - 15:30  Main Session

**Heart failure and ischemia**

- When and how should we look for viability?
- How to assess the impact of myocardial infarction on the mitral valve apparatus.
- Importance of the RV for the management.
- How to assess the impact of treatments.

14:00 - 15:30  Clinical Imaging

**Challenges in pulmonary hypertension: imaging matters!**

- What echocardiography could provide?
- We need correct answers: is this a pre or post capillary pulmonary hypertension?
- Multi-modality imaging assessment of pulmonary hypertension.
- Conventional and new therapeutic developments.

14:00 - 15:30  Debate Session

**Tea for two in the operating theater**

- MitraClip implantation: the imager expertise.
- MitraClip implantation: the interventionist expertise.
- Aortic valve repair: the imager expertise.
- Aortic valve repair: the surgeon expertise.

14:00 - 15:30  Teaching Course

**Cardiac masses and sources of embolism**

- Intracardiac thrombi.
- Valvular and device-related sources of embolism.
- Cardiac tumors.
- Vascular sources of embolism.

14:00 - 15:30  Special Session

**The research in imaging in the world- EuroEcho-Imaging Lecture**

The Young Investigator Awardees 2017 from US (American Society of Echocardiography-ASE), Japan (Japanese Society of Echocardiography-JSE) and Asia (Asian Pacific Association of Echocardiography-AAE) will present their winning research.
14:00 - 15:30  Symposium

**Focus on FOCUS echo**

*Joint session with the Indian Academy of Echocardiography (IAE)*

- Education and training needed for FOCUS and Emergency echo.
- FOCUS for improved diagnostics in everyday cardiology.
- FOCUS on heart failure.
- FOCUS - a bad sight in the cardiac ICU.

14:00 - 15:30  Symposium

**Multi-modality seminar: coronary abnormalities - Congenital and acquired**

- Imaging workflow for Kawasaki disease.
- Imaging coronary arteries after the arterial switch operation.
- Coronary fistulas and imaging for diagnosis and intervention.

15:30 - 16:30  Meet the Experts

**Meet the experts**

Extend the experience of two important past EACVI webinars
- Challenges in hypertrophic cardiomyopathies.
- Discussion.
- Challenges in the assessment of prosthetic valves.
- Discussion.

15:40 - 16:25  How-to Session

**How to design and write a good scientific research study**

*EACVI HIT (Heart Imagers of Tomorrow)*

16:30 - 18:00  Main Session

**The invasive validation of left ventricular filling pressures**

- Why and how do we need to estimate non invasive left ventricular filling pressures?
- The 2016 ASE/EACVI recommendations on diastolic function.
- The American experience.
- The European experience: insights from the Euro-Filling Study.
LV hypertrophy: a disease of many faces

- Imaging in sarcomeric hypertrophic cardiomyopathy: what’s new?
- Is this hypertensive heart disease or HCM?
- Fabry disease: don’t forget about it!

Functional mitral regurgitation: Update 2017

Joint session with the Cardiovascular Imaging Department of the Brazilian Society of Cardiology

- What is severe functional mitral regurgitation.
- Added value of three dimensional echocardiography.
- Should stress echocardiography be a must?
- What do I need from Echo for mitral valve repair?

Non-invasive hemodynamic assessment by echocardiography

- Volume status and preload responsiveness.
- Left ventricular hemodynamics in heart failure.
- Pulmonary pressures and vascular resistance in pulmonary hypertension.
- Cardiac tamponade and constrictive pericarditis.

Aortopathy

- Aortopathy, screening, genetic testing and follow up.
- Multimodality imaging in patients with aortopathy.
- Aortopathy in pregnancy.
- Marfan Syndrome, its not only the aorta wich is affected.
Friday 8 December 2017
Afternoon Sessions

16:30 - 18:00 Symposium

**Cardiomyopathies and heart failure phenotypes**

*Joint session with ECOSIAC*

- HfPEF: different phenotypes, additive value of imaging techniques.
- Heart failure in heart valve disease.
- Cardiomyopathies how improve on the etiology with imaging.
- How we assess the right ventricle in heart failure patients.

16:30 - 18:00 Symposium

**Advances in the non-invasive assessment of cardiac mechanics**

- Stretch-strain relations: a new non-invasive approach to myocardial contractility.
- 3D vs 2D echo strain: promise and reality.
- 3 MRI strain assessment: tagging, feature tracking, velocity encoding - is there a winner.
- A different way of looking at cardiac mechanics: The concept of the constant-volume heart.

18:00 - 19:00 Symposium

**Echo@Jeopardy**

We are turning the popular Jeopardy game into a cardiovascular imaging challenge.
08:30 - 10:00  Symposium

**Methods and value of cardiotoxicity assessment in oncologic disease**

• Cardiac complications of cancer therapy.
• Multimodality imaging options to assess oncologic cardiotoxicity.
• Treatment and prevention of cardiotoxicity from cancer treatment.
• Cases.

08:30 - 10:00  Teaching Course

**Standard and advanced echocardiographic evaluation in cardiomyopathies**

• Physiologic vs pathologic hypertrophy.
• Hypertrophic cardiomyopathy.
• Infiltrative diseases.
• Storage diseases.

08:30 - 10:00  Symposium

**HIT HOT session**
(Heart Imagers of Tomorrow - Heart failure specialists of Tomorrow)

08:30 - 10:00  Symposium

**Cardiac CT Secrets**

• CT Angiography in the big, heavy, and arrhythmic - how to maximize image quality.
• Coronary CTA: Frequent misinterpretations - and how to avoid them.
• Assessment of valve disease by CT.
• CT myocardial perfusion made easy.

08:30 - 10:00  Symposium

**New horizons in congenital heart imaging**

• Vortex imaging and particle imaging velocimetry: role in congenital heart disease.
• Fusion imaging.
• Fetal cardiac MRI.
• Shear wave imaging: update and application in congenital heart disease.
10:00 - 11:00  Special Session

**High tech corner session 1**  
Session focusing on the most up-to-date technology

- Fusion of 3D echo strain and CT angiography  
- Discussion/Q&A.  
- Multimodal image fusion for cardiac resynchronization therapy optimization.  
- Discussion/Q&A.  
- Current trends in 4D flow MRI: towards clinical application.  
- Discussion/Q&A.

10:10 - 10:55  How-to Session

**How to analyze nuclear cardiology data - tips for beginners**

EACVI HIT (Heart Imagers of Tomorrow)

11:00 - 12:30  Special Session

**EuroEcho-Imaging 2017 highlights**

- Heart failure.  
- New technologies.  
- Valvular heart disease.  
- Congenital heart disease.  
- Cardiac magnetic imaging.  
- Computed tomography/Nuclear cardiology.

11:00 - 12:30  Symposium

**Mitral regurgitation – how to approach?**

*Joint session with the Working Group of Echocardiography of the Hellenic Cardiological Society*

- Mitral regurgitation quantification.  
- Value of Cardiac Magnetic resonance for mitral regurgitation.  
- Stress echo and mitral regurgitation.  
- Echocardiography for guiding the treatment.
Satuday 9 December 2017  
Morning Sessions

11:00 - 12:30 Symposium

**Right Heart Failure**

*Joint session with the European Association of Cardiovascular Imaging (EACVI) and the Asia-Pacific Association of Echocardiography (AAE)*

- The comprehensive echo assessment of right ventricular failure.
- Right heart cardiomyopathies.
- Right sided valvular heart disease.
- Pericardial diseases.

11:00 - 12:30 Symposium

**Imaging for intervention in single ventricle patients**

- Fetal cardiac intervention: Optimal imaging strategy before, during and after.
- Imaging strategy along the single ventricle pathway.
- Imaging for extra-cardiac complications.
- Imaging for interventions for complications in the Fontan circuit.
Membership Programme

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