

DHZB
AKADEMIE



HYBRID INTERNATIONAL EXPERT WORKSHOP

3D Advanced Echocardiography Workshop

22.01.–24.01.2027



Dear colleagues and friends,

It is with great enthusiasm that we invite you to join us for an exclusive three-day deep dive into 3D echocardiography, designed for seasoned imagers and advanced practitioners. This workshop brings together world-leading experts to explore and master the latest advancements in complex valve analysis, right ventricular quantification, and critical care echocardiography through expert-led sessions, live demos, and hands-on training tailored to elevate your skills.

3D echocardiography has transformed cardiac imaging, offering unparalleled insights into structural heart disease and guiding interventions with increasing precision. This workshop is structured to elevate your expertise, combining expert-led sessions, interactive case discussions, live demonstrations, and hands-on training on GE and Philips with state-of-the-art imaging technologies. Guided by an international faculty and reflecting current best practices in echocardiography, this workshop helps you deepen your expertise and confidently apply advanced imaging techniques in daily clinical practice.

Whether you seek to refine your 3D imaging skills or push the limits of echocardiographic interpretation, this workshop will provide the tools and knowledge to enhance your clinical practice. Advanced users will solidify their skills with structured learning, while experts push boundaries through complex case discussions and live demos. This is your opportunity to master 3D echocardiography at any stage of advanced practice. We warmly invite you to engage, discuss, and challenge yourself in an interactive learning environment among peers who share the same passion for excellence in cardiovascular imaging. Join us in Berlin for this unique opportunity to advance your skills and contribute to the evolving landscape of echocardiography. We look forward to welcoming you!

PROF. VOLKMAR FALK & DR. NICOLAS MERKE
ON BEHALF OF THE SCIENTIFIC COMMITTEE
DHZC CHARITÉ – UNIVERSITÄTSMEDIZIN BERLIN

Program Day 1: 22. Jan 27

8:00–9:00 Registration

9:00 Welcome & Introduction

I Basics

Chairs: V. Delgado, E. Romero-Dorta, W. L'Hoyes

9:15 Intro to physics explained by images to show 5 - 7 core principles F. Timmermans

9:50 How to do 3D from acquisition to comprehensive 3D images N. Merke

10:25 Contrast in unexpected ways (Endocarditis, Regurgitation, Stenosis and vascular) A. Hagendorff

11:00 Coffee break

11:30 Live Knobology on GE N. Merke & A. Felix

12:00 Cases

12:05 Quick 3D case atrial septum disease: how 3D made the difference K. Papadopoulos

10 min Discussion

12:25 Quick 3D case valvular heart disease: how 3D made the difference C. Fiore

10 min Discussion

12:50 Live Knobology on Philips R. Brandt & T. Ruf

13:15 Lunch break

II Cardiac function is not only EF we need to go beyond in acute settings

Chairs: F. Schönrrath, E. Potapov, E. Stellbrink, E. Kaya

14:00 LV & RV Volume or EF a practical guide to comprehensive 3D assessment (EF, SV, GLS) N. Merke

10 min Discussion

14:35 Critical care echo to trigger therapy and treatment decisions in acute heart failure: from diuretics to mechanical circulatory support (MCS) L. Gargani

10 min Discussion

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|--------------|--|--------------|
| 15:10 | Medical therapy in acute Heart Failure: from decongestion to inotropic support as simple take home message | F. Verbrugge |
| | 10 min Discussion | |
| 15:40 | Clinical case: The impressive power of medications | A. Felix |
| | 10 min Discussion | |
| 16:00 | MCS the last resort in acute HF despite optimal guideline directed therapy | E. Potapov |
| 16:20 | Clinical case: Heart failure cases | M. Vannan |
| | 10 min Discussion | |

16:55 Coffee break

III Valvular Heart Disease - What parameter to use in valvular regurgitation

Chairs: V. Delgado, V. Reskovic, B.Shah

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| 17:30 | Defining Moderate-to-Severe Valvular Regurgitation: Key Echo Parameters in Practice What is moderate to severe in AR and MR? | N. Merke |
| | 10 min Discussion | |
| 18:05 | Practical Transthoracic Echo Strategies for Aortic Regurgitation in the presence of Mitral Regurgitation: How to ace Aortic regurgitation by transthoracic echo if there is also Mitral Regurgitation | P. Bertrand |
| | 10 min Discussion | |
| 18:45 | TEE in AR beyond looking at Jet: Advanced TEE techniques: 3D volumetric assessment, vena contracta area, diastolic flow reversal. Never description eminence based only | A. Mladenow |
| | 10 min Discussion | |

Program Day 2: 23. Jan 27

IV Case based learning

Chairs: E. Donal, A. Sannino, A. Leo

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|--------------|--|---------------|
| 8:45 | Overview: What is recommended in VHD. "Which parameter do you actually trust in daily practice?" Guideline-based approach (ESC/EACTS, ASE/EACVI). Multiparametric logic, where echo fails vs where it helps. | F. Timmermans |
| | 10 min Discussion | |
| 9:15 | MR – PISA Step by step, Hemodynamic assumptions Practical acquisition tips, Typical pitfalls (eccentric jets, multiple jets, AF) | B. Shah |
| | 10 min Discussion | |
| 9:45 | MR – 3D VCA vs 2D VC. Why VC $\neq$ VCA. Cut-offs & feasibility. How to acquire usable 3D color datasets, Cropping workflow (step-by-step). Where to measure VCA. Typical measurement planes | E. Romero |
| | 10 min Discussion | |
| 10:15 | TR – 3D VCA, Why TR is a different beast. Annular dynamics & jet complexity. When 3D VCA is the first choice | A. Felix |
| 10:45 | AR – Volumetric approach, Stroke volume logic | E. Stellbrink |
| | 10 min Discussion | |
| 11:15 | AR & MR – Let's be logic. Cross-checking inconsistencies. How to resolve discordant parameters. LV size, pulmonary pressure, Doppler signals always part of the equation | A. Hagendorff |

11:45 Coffee break

V Advanced Echo Tools in ICU

Chairs: A. Hagendorff, A. Motoc, S. Olyusana

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| 12:15 | Echo Contrast in daily practice going deep beyond thrombus & border detection. A step by step approach to when and how to do | A. Ewers |
| | 10 min Discussion | |
| 12:45 | 3D Echocardiography to image coronary arteries in the ICU. When to use and how to do – Tool or Toy | A. Hagendorff |
| | 10 min Discussion | |
| 13:15 | Lung and diastolic assessment with echo in ICU – integrating lung ultrasound with echo for fluid management | E. Argai |
| | 10 min Discussion | |

13:40 Lunch Break

VI Echo in ICU

Chairs: C. Knosalla, L. Reichert, E. Rafflenbeul

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| 14:30 | How to reliably assess the RV by 2D/3D Echo. 3D seems to be the most complete choice or are we chasing the rainbow? A practical approach | M. Vannan |
| | 10 min Discussion | |
| 15:00 | ECMO hemodynamics seen by Echo is an impossible task. How to ace it and guide therapy. Integration of 2D techniques with 3D is the key | S. Olyusana |
| | 10 min Discussion | |
| 15:35 | Pericardial effusion or Tamponade. When pressure wins over function is 2D echo only, but there is a tiny place for 3D and even for contrast | J. Knierim |
| | 10 min Discussion | |

VII Cardiomyopathy Pathway

Chairs: M. Vannan, A Lombardo, B. Heidecker

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| 16:05 | Landscape of Pathology | F. Graziani |
| | 10 min Discussion | |
| 16:35 | Landscape of medical therapy | M. Pieroni |
| | 10 min Discussion | |
| 17:05 | Landscape of surgical therapy | C. Knosalla |
| | 10 min Discussion | |

17:35 Coffee break

VIII Imager Masterclass

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| 18:00 | MV Case presentation | C. Fiore |
| | 10 min Discussion | |
| 18:20 | TV Case presentation | T. Kemaloglu |
| | 10 min Discussion | |

18:40 LV case presentation

A. Leo

10 min Discussion

19:00 ICU case presentation

E. Stellbrink

10 min Discussion

19:20 Closing remarks

N. Merke

Program Day 3: 24. Jan 27

3D Hands on with GE (EchoPAC Station)

8:30–11:00 LV & RV Function and a glimpse at aortic valve

A. Hagendorff / V. Kavalercyk

11:15–13:15 Tricuspid Valve

E. Romero / E. Donal

13:15 Lunch break

14:15–16:30 Mitral Valve

N. Merke / A. Mladenow

3D Hands on with Philips (TomTec)

8:30–11:00 LV & RV Function and a glimpse at aortic valve

R. Brandt / V. Delgado (?)

11:15–13:15 Mitral Valve

V. Delgado / A. Leo

13:15 Lunch break

14:15–16:30 Tricuspid Valve

T. Ruf

Register here

CONTACT

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ORGANISATION

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www.dhzb-akademie.de/course/3d-workshop/

LOCATION

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**STIFTUNG
DEUTSCHES HERZZENTRUM**

SCIENTIFIC DIRECTOR

PROF. DR. VOLKMAR FALK

DIREKTOR DER KLINIK DEUTSCHES HERZZENTRUM DER CHARITÉ

DR. NICOLAS MERKE

OBERARZT UND LEITER ECHOKARDIOGRAPHIE DEGUM III KURSLEITER
DEUTSCHES HERZZENTRUM DER CHARITÉ

List of Speakers

Name	Klinik / Institution
Alexander Mladenow	Deutsches Herzzentrum Charité
Andreea-Iulia Motoc	UZ Brussel
Segun Olusanya	St Bartholomew's Hospital
Konstantinos Papadopoulos	Interbalkan Medical Center
Maurizio Pieroni	Careggi University Hospital Firenze
Evgenij Potapov	Deutsches Herzzentrum Charité
Erik Rafflenbeul	Schön Klinik, Kardiologie Hamburg
Vlatka Reskovic	University Hospital Centre Zagreb (KBC Zagreb)
Elena Romero Dorta	Deutsches Herzzentrum Charité
Tobias Ruf	Universitätsmedizin der Johannes Gutenberg-Universität Mainz
Anna Sannino	Deutsches Herzzentrum Charité
Felix Schönrath	Deutsches Herzzentrum Charité
Benoy Shah	University Hospital Southampton
Ekaterina Stellbrink	Klinikum Bielefeld
Frank Timmermans	Ghent University, Ghent (Belgium)
Mani Vannan	Piedmont Heart Institute
Frederik Verbrugge	University Hospital (UZ) Brussels

List of Speakers

Name	Klinik / Institution
Philippe Bertrand	Hartcentrum Hasselt
Roland Brandt	Kerckhoff Klinik
Victoria Delgado	University Hospital Germans Trias i Pujol, Spain
Erwan Donal	Centre Hospitalier Universitaire de Rennes
A. Ewers	–
Alex Felix	National Institute of Cardiology
Corrado Fiore	Città di Lecce Hospital
Luna Gargani	University of Pisa
Francesca Graziani	Policlinico Universitario Agostino Gemelli
Andreas Hagendorff	Universitätsklinikum Leipzig
Vladyslav Kavalarchyk	Twitter Tutor & Referent Workshop
Esra Kaya	Sykehuset i Vestfold HF
Tugba Kemalğlu Öz	Liv Hospital Group
Jan Knierim	SANA Klinikum
Christoph Knosalla	Deutsches Herzzentrum Charité
Wouter L' Hoyes	Imelda Hospital Bonheiden
Laura Anna Leo	Istituto Cardiocentro Ticino
Antonella Lombardo	Università Cattolica del Sacro Cuore
Nicolas Merke	Deutsches Herzzentrum Charité