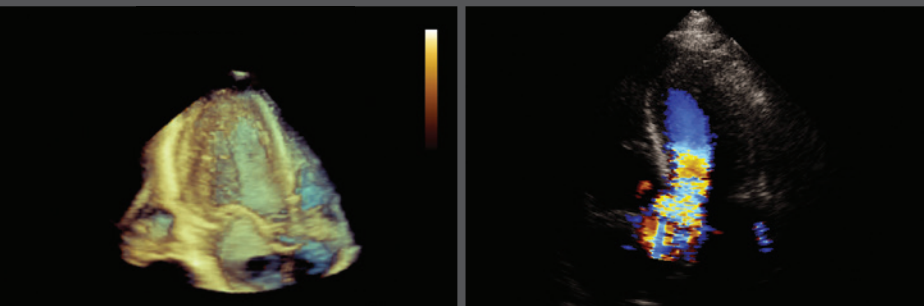


# ECHO HAWAII™

# 31st ANNUAL



## ADVANCE PROGRAM

January 17–21, 2022

The Westin Hapuna Beach Resort  
Kohala Coast, Big Island, HI

### Course Director

James D. Thomas, MD, FASE  
Past President, ASE  
Northwestern Medicine  
Chicago, IL

### Co-Director

Jonathan R. Lindner, MD, FASE  
Past President, ASE  
Oregon Health & Science University  
Portland, OR

EARLY  
REGISTRATION ENDS

**DEC. 17**

Register Online at [ASEcho.org/EchoHawaii](https://ASEcho.org/EchoHawaii)



Jointly provided by ASE and the ASE Foundation, and held in cooperation with the Canadian Society of Echocardiography.

# Program Information

## Welcome Back to In-Person Meetings

ASE is excited to welcome all cardiovascular ultrasound enthusiasts back to in-person learning at the 31st Annual Echo Hawaii course. The health and safety of our attendees is of utmost importance. We are committed to providing a safe, productive, and welcoming environment for everyone. To learn more about the precautions we have put in place, in partnership with The Westin Hapuna Beach Resort, you may review the Code of Conduct and COVID-19 Statement online at [ASEcho.org/Live-Course-Statement](https://ASEcho.org/Live-Course-Statement).

## Overview of Echo Hawaii

Echo Hawaii presents the latest information on established and emerging cardiovascular ultrasound technologies. **Expert U.S. and international faculty** discuss state-of-the-art technologies with a particular focus on how they may be effectively applied in the clinical setting. Case-based approaches are used to discuss new and established applications of echocardiography for diagnosis and guiding management in patients with a broad array of cardiovascular conditions. Topics include: advanced assessment of systolic and diastolic function, 3D/4D imaging, adult congenital heart disease and contemporary approaches to valve disease, guidance of interventional procedures, contrast echocardiography, ischemic heart disease, aortic pathology, and applications of artificial intelligence in echocardiography. When appropriate, multimodality imaging is also covered. Special sessions include workshops on echo quantitation, contrast, 3D visualization, and strain.

## Learning Objectives

Upon completion of this program, participants will be better able to:

- Integrate echocardiographic information in clinical decision making.
- Assess ventricular and valvular function using Doppler hemodynamics.
- Describe Doppler assessment of diastolic function/dysfunction.
- Explain new advances in the echocardiographic assessment of left and right ventricular function.
- Integrate echocardiographic assessment of cardiomyopathies and systemic diseases in patient management.
- Define clinical uses of TEE and 3D echocardiography.
- Recognize how echocardiography is used to help manage patients with ischemic heart disease.
- Recognize the role of echo contrast and be able to incorporate its use in the echo laboratory.
- Integrate echo information in the management of complex valvular heart disease.
- Explain the role of echocardiography in the perioperative and critical care environment.
- Explain the principles of artificial intelligence and how they are being applied to echocardiography.

## Who Should Attend

This course is designed for adult cardiologists, critical care specialists, cardiovascular surgeons, cardiovascular anesthesiologists, fellows in training, cardiovascular sonographers, internists, and intensive care specialists with a special interest in echocardiography.

## Course Registration

Registration fees include breakfasts, refreshment breaks, welcome reception, poster reception, access to the content on-demand in the ASE Learning Hub from February 4, 2022 through May 5, 2022, and CME/MOC credit. ASE members may take advantage of reduced registration fees as a benefit of membership. Register online at [ASEcho.org/EchoHawaii](https://ASEcho.org/EchoHawaii).

## Accreditation and Designation

ASE is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. ASE designates this live activity for a maximum of **29.25 AMA PRA Category 1 Credits™** pending approval. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Successful completion of this CME activity enables the participant to earn up to **29.25 MOC points** (pending approval) in the **American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program and/or The American Board of Anesthesiology® (ABA) Maintenance of Certification in Anesthesiology Program® or MOCA®**. Participants will earn MOC and/or MOCA points equivalent to the amount of CME credits claimed for the activity. It is ASE's responsibility to submit participant completion information to ACCME for the purpose of granting ABA MOCA and/or ABIM MOC points.



Maintenance of Certification in Anesthesiology Program® and MOCA® are registered certification marks of the American Board of Anesthesiology®. MOCA 2.0® is a trademark of the American Board of Anesthesiology®.

“Wonderful conference with outstanding faculty presenters. Overall, the talks were clinically applicable and will help me improve the way I practice echocardiography.”

*Past Echo Hawaii Attendee*

## Kohala Coast, Big Island

The sun-drenched Kohala Coast only receives about nine inches of rain a year. The Kohala Coast is known for its world-class shoreline, as well as for cultural and archaeological gems nestled between centuries-old lava fields. This location offers everything you desire like dependable sunshine, superb sandy beaches, warm turquoise fish-filled waters, swaying coconut palms, and pristine rain forests. A few Big Island attractions include Volcanoes National Park, Parker Ranch, Mauna Kea Observatory, Waipio Valley, Akaka Falls, and Hapuna Beach State Park. So, be prepared to unplug, unwind, and explore the land and sea with family and friends.

## Accommodations and Lodging

Nestled amidst the bluffs above the white sands of the sunny Kohala Coast on the Big Island, The Westin Hapuna Beach Resort is the location of the Echo Hawaii course. The resort's contemporary style contrasts with lush, manicured gardens and the endless blues of the sky and the ocean. Four dining venues are inspired by the island's bounty. The award-winning 18-hole Hapuna Golf Course was designed

by Arnold Palmer. Two swimming pools, a 6,800-square-foot freeform family pool and an adult-exclusive infinity pool, overlook Hapuna Beach. A Westin Workout Center and Crossfit Studio are complemented by the Hapuna Spa for rejuvenation and relaxation.

ASE has secured discounted rates and a block of rooms at the Westin Hapuna Beach Resort and sister property Mauna Kea Beach Hotel. Both hotels are in Kamuela and are located approximately 30 minutes from the Kona International Airport. These upscale golf resort hotels are 11 miles from downtown Waimea and 13 miles from Lapakahi State Historical Park. Airy rooms come with ocean views, balconies, and free WiFi, as well as minifridges and coffeemakers. ASE attendees also receive free access to the fitness center and discounts on greens fees at the two resort golf courses. For more information on booking your hotel, please visit [ASEcho.org/EchoHawaii/Accommodations](https://ASEcho.org/EchoHawaii/Accommodations).

The hotel room blocks are scheduled to be held until Thursday, December 16, 2021, but may be sold out before this date. Therefore, we advise registering for the program and reserving your hotel room as soon as possible. Please be sure to ask about any additional hotel fees, early departure fees, or cancellation penalties. Check-in time is 3:00 PM.



## Course Director



**James D. Thomas, MD, FASE**  
Past President, ASE  
Northwestern Medicine  
Chicago, IL

## Course Co-Director



**Jonathan R. Lindner, MD, FASE**  
Past President, ASE  
Oregon Health & Science University  
Portland, OR

## Faculty

**Todd Belcik, BS, ACS, RDCS, FASE**  
Oregon Health & Science University  
Portland, OR

**Sabe De, MD, FASE**  
Western University Medical Center  
London, ON

**Anthony N. DeMaria, MD, FASE**  
Past President, ASE  
University of California San Diego  
San Diego, CA

**Linda D. Gillam, MD, FASE**  
Past President, ASE  
Morristown Medical Center  
Morristown, NJ

**James Hodovan, MS, RDCS (AE, PE), CVT**  
Oregon Health & Science University  
Portland, OR

**Madeline Jankowski, BS, RDCS, FASE**  
Northwestern Medicine  
Chicago, IL

**Jennifer E. Liu, MD, FASE**  
Memorial Sloan Kettering Cancer Center  
New York, NY

**Sharon McCartney, MD, FASE**  
Duke University Medical Center  
Durham, NC

**Robert R. Moss, MD**  
Providence Health Systems  
Vancouver, BC

**Jae K. Oh, MD, FASE**  
Mayo Clinic  
Rochester, MN

**Michael H. Picard, MD, FASE**  
Past President, ASE  
Massachusetts General Hospital  
Boston, MA

**Thomas Ryan, MD, FASE**  
Past President, ASE  
The Ohio State University  
Columbus, OH

**Muhamed Saric, MD, PhD, FASE**  
New York University  
New York, NY

**Sangeeta B. Shah, MD, FASE**  
Virginia Commonwealth University  
Richmond, VA

**Sanjiv J. Shah, MD, FASE**  
Northwestern Medicine  
Chicago, IL

**Raymond F. Stainback, MD, FASE**  
President, ASE  
Texas Heart Institute  
Houston, TX

**Wendy Tsang, MD**  
University of Toronto  
Toronto, Canada

## SUNDAY, JANUARY 16, 2022

4:00 – 6:00 PM **Registration**

## MONDAY, JANUARY 17, 2022

6:30 AM **Registration, Breakfast, and Visit Exhibits**

*Moderator: J. Thomas*

7:00 AM **Welcome and Course Orientation**  
*J. Lindner, J. Thomas*

7:20 AM **Welcome from ASE President**  
*R. Stainback*

7:30 AM **Physiology of Systole: What Are We Really Trying to Measure?**  
*J. Lindner*

7:45 AM **Assessment of Systolic Function: When to Use Contrast or 3D?**  
*M. Picard*

8:00 AM **Introduction to Strain Imaging: How Does Global Longitudinal Strain Add to Ejection Fraction?**  
*S. De*

8:15 AM **When Do We Need Contrast? How Can It Be Implemented?**  
*A. DeMaria*

8:30 AM **Cases in Systolic Function: Assessing the Subtleties**  
*Moderator: J. Thomas*  
*S. De, A. DeMaria, J. Lindner, M. Picard, R. Stainback*

8:45 AM **Question & Answer Using the App**  
*Moderator: J. Thomas*  
*S. De, A. DeMaria, J. Lindner, M. Picard, R. Stainback*

9:00 AM **Refreshment Break and Visit Exhibits**

9:15 AM **Physiology of Diastole: What Are We Trying to Measure?**  
*S. De*

9:30 AM **Diastolic Guidelines: Are They Helpful?**  
*J. Oh*

9:45 AM **Assessing the Right Ventricle: Role of Strain and 3D**  
*M. Picard*

10:00 AM **Evolving Role of Echo in Bedside Critical Care: Lessons from COVID**  
*S. McCartney*

10:15 AM **Strain in the Assessment of Cardiomyopathies**  
*J. Liu*

10:30 AM **Echo Beyond 2022: Artificial Intelligence and Machine Learning**  
*L. Gillam*

10:45 AM **My Biggest Mistakes: Lessons Learned**  
*R. Moss*

11:00 AM **Puzzling Cases in Cardiac Function: Read With the Experts**  
*Moderator: S. De*  
*L. Gillam, J. Liu, S. McCartney, R. Moss, J. Oh, M. Picard*

11:15 AM **Question & Answer Using the App**  
*S. De, L. Gillam, J. Liu, S. McCartney, R. Moss, J. Oh, M. Picard*

# Schedule of Events

3:30 – 5:00 PM	<b>Workshop in Echo Quantitation: Practical Approaches to Use in Your Lab</b> <i>Moderator: J. Oh</i> <i>T. Belcik, M. Jankowski, T. Ryan, M. Saric, S.J. Shah</i>
5:00 – 6:00 PM	<b>Welcome Reception</b>

## TUESDAY, JANUARY 18, 2022

6:30 AM	<b>Registration, Breakfast, and Visit Exhibits</b> <i>Moderator: J. Lindner</i>
7:00 AM	<b>A Potpourri of Fascinating Cases to Learn From</b> <i>Moderator: T. Ryan</i> <i>J. Lindner, M. Picard, R. Stainback</i>
8:00 AM	<b>Stress Echo: Improving Your Batting Average with Contrast and Other Tips</b> <i>T. Ryan</i>
8:15 AM	<b>Chest Pain in the Emergency Room: Which Test for Which Patient?</b> <i>J. Lindner</i>
8:30 AM	<b>Complications of Myocardial Infarction: Echo has the Answer!</b> <i>R. Stainback</i>
8:45 AM	<b>Echo Beyond 2022: Advanced Applications of Contrast: Perfusion and Therapeutics</b> <i>J. Lindner</i>
9:00 AM	<b>Strategies to Make Your Lab Excellent</b> <i>M. Jankowski</i>
9:15 AM	<b>Cases in Coronary Artery Disease: Tips from the Experts</b> <i>Moderator: J. Lindner</i> <i>M. Jankowski, T. Ryan, R. Stainback</i>
9:30 AM	<b>Question &amp; Answer Using the App</b> <i>M. Jankowski, J. Lindner, T. Ryan, R. Stainback</i>
9:45 AM	<b>Refreshment Break and Visit Exhibits</b>
10:00 AM	<b>Assessment of Atrial Function: What is the Answer?</b> <i>S.J. Shah</i>
10:15 AM	<b>Global Normative Echo Data: Lessons from the WASE Study</b> <i>M. Picard</i>
10:30 AM	<b>Echo to Phenotype and Guide Therapy of HFpEF</b> <i>S.J. Shah</i>
10:45 AM	<b>Top Five Situations Where I Find Strain is Helpful</b> <i>S. De</i>
11:00 AM	<b>Valvular Heart Disease: A Decade of Progress</b> <i>L. Gillam</i>
11:15 AM	<b>Cases You'll Never Forget</b> <i>Moderator: S.J. Shah</i> <i>S. De, L. Gillam, M. Picard</i>
11:30 AM	<b>Question &amp; Answer Using the App</b> <i>S. De, L. Gillam, M. Picard, S.J. Shah</i>
4:00 – 6:30 PM	<b>Contrast Workshop: You, Too, Can Do Myocardial Perfusion</b> <i>Moderator: J. Lindner</i> <i>T. Belcik, A. DeMaria, J. Hodovan, M. Jankowski, R. Moss</i>

## WEDNESDAY, JANUARY 19, 2022

6:30 AM	<b>Registration, Breakfast, and Visit Exhibits</b> <i>Moderator: L. Gillam</i>
7:00 AM	<b>A Potpourri of Fascinating Cases to Learn From</b> <i>Moderator: J. Thomas</i> <i>L. Gillam, S. McCartney, M. Saric</i>
8:00 AM	<b>Best Papers in JASE 2021</b> <i>M. Picard</i>
8:15 AM	<b>Quantification of Stenosis: Avoid These Pitfalls</b> <i>W. Tsang</i>
8:30 AM	<b>TAVR 2022: Who Should Get it? Who Still Needs Surgery?</b> <i>L. Gillam</i>
8:45 AM	<b>Valvular Regurgitation: How Can We Be More Accurate?</b> <i>M. Jankowski, J. Thomas</i>
9:00 AM	<b>Starting an Interventional Echo Program: Training, Technique, and Economics</b> <i>R. Moss</i>
9:15 AM	<b>Sitting in With the Heart Valve Team: Cases to Learn From</b> <i>Moderator: L. Gillam</i> <i>M. Jankowski, R. Moss, M. Picard, J. Thomas, W. Tsang</i>
9:30 AM	<b>Question &amp; Answer Using the App</b> <i>L. Gillam, M. Jankowski, R. Moss, M. Picard, J. Thomas, W. Tsang</i>
9:45 AM	<b>Refreshment Break and Visit Exhibits</b>
10:00 AM	<b>3D Assessment of the Cardiac Valves: Learn the Views and the Anatomy</b> <i>S. McCartney</i>
10:15 AM	<b>MitraClip: Who Is It For? How Can It Be Guided?</b> <i>M. Saric</i>
10:30 AM	<b>Crazy Things in the Cath Lab: Plugs, Valve in Valve, Occluders</b> <i>L. Gillam</i>
10:45 AM	<b>Echo Beyond 2022: The Brave New World of Percutaneous Treatment of the Tricuspid Valve</b> <i>R. Moss</i>
11:00 AM	<b>Sitting in with the Heart Valve Team: Mitral and Tricuspid Cases</b> <i>Moderator: S. McCartney</i> <i>L. Gillam, R. Moss, M. Saric</i>
11:15 AM	<b>Question &amp; Answer Using the App</b> <i>L. Gillam, S. McCartney, R. Moss, M. Saric</i>
4:00 – 5:00 PM	<b>Tricks and Tips for 3D Visualization: A Practical Approach to Use in Your Lab</b> <i>Moderator: M. Saric</i> <i>T. Belcik, M. Jankowski, S. McCartney, W. Tsang</i>

# Schedule of Events



## THURSDAY, JANUARY 20, 2022

6:30 AM **Registration, Breakfast, and Visit Exhibits**

*Moderator: R. Stainback*

7:00 AM **A Potpourri of Fascinating Cases to Learn From**

*Moderator: A. DeMaria*

*J. Oh, T. Ryan, R. Stainback*

8:00 AM **A Systematic Approach to Multi-Valve Disease**

*J. Thomas*

8:15 AM **A Practical Approach to Prosthetic Valves**

*L. Gillam*

8:30 AM **Exercise Echo and Strain to Time Intervention in Valvular Heart Disease**

*J. Oh*

8:45 AM **Use of Echo to Manage Endocarditis**

*T. Ryan*

9:00 AM **Sitting in with the Heart Valve Team: One Last Hurrah**

*Moderator: J. Thomas*

*L. Gillam, J. Oh, T. Ryan*

9:15 AM **Question & Answer Using the App**

*L. Gillam, J. Oh, T. Ryan, J. Thomas*

9:30 AM **Refreshment Break and Visit Exhibits**

9:45 AM **Findings in Repaired Congenital Disease: Expected Finding or Problem?**

*R. Stainback*

10:00 AM **When Do Adults with Congenital Heart Disease Need An Intervention? The Role of Echo**

*S.B. Shah*

10:15 AM **TEE in Emergent Situations**

*S. McCartney*

10:30 AM **Athlete's Heart: How to Separate Abnormal from Supraphysiologic**

*A. DeMaria*

10:45 AM **Use of Echo in Pulmonary Hypertension**

*S.J. Shah*

11:00 AM **Handheld Echo: How Far Can it Go**

*R. Moss*

11:15 AM **Puzzling Cases to Learn From: Read with the Experts**

*Moderator: R. Stainback*

*A. DeMaria, S. McCartney, R. Moss, S.B. Shah, S.J. Shah*

11:30 AM **Question & Answer Using the App**

*A. DeMaria, S. McCartney, R. Moss, S.B. Shah, S.J. Shah, R. Stainback*

4:00 – 6:00 PM **Strain from A to Z: Technique, Analysis, and Application**

*Moderator: J. Thomas*

*T. Belcik, S. De, M. Jankowski, J. Liu, S.J. Shah*

## FRIDAY, JANUARY 21, 2022

6:30 AM **Registration, Breakfast, and Visit Exhibits**

*Moderator: J. Oh*

7:00 AM **A Potpourri of Fascinating Cases to Learn From**

*Moderator: J. Liu*

*M. Saric, S.B. Shah, W. Tsang*

8:00 AM **Cardio-Oncology: An Integrative Approach**

*J. Liu*

8:15 AM **Multimodality Assessment of Cardiac Masses**

*M. Saric*

8:30 AM **Amyloidosis: Diagnosis and (Finally) Treatment**

*S.J. Shah*

8:45 AM **Think Quick: Make the Diagnosis with Just One Clip**

*M. Picard*

9:00 AM **Puzzling Cases to Learn From: Read with the Experts**

*Moderator: J. Oh*

*J. Liu, M. Picard, M. Saric, S.J. Shah*

9:15 AM **Question & Answer Using the App**

*J. Liu, J. Oh, M. Picard, M. Saric, S.J. Shah*

9:00 AM **Refreshment Break and Visit Exhibits**

9:45 AM **Extracorporeal Membrane Oxygenation, Ventricular Assist Device and Transplant: How is Echo Used?**

*S. McCartney*

10:00 AM **Carcinoid and Other Valvulopathies**

*W. Tsang*

10:15 AM **Pericardial Disease: Never Miss Constriction Again**

*J. Oh*

10:30 AM **Diseases of the Aorta: How to Deal with Different Multi-Modality Measurements**

*S.B. Shah*

10:45 AM **Question & Answer Using the App**

*Moderator: J. Oh*

*S. McCartney, S.B. Shah, W. Tsang*

11:00 AM **Mai Tai Finale and Aloha Until 2023**

*J. Lindner, J. Thomas*



# Register Online at [ASEcho.org/EchoHawaii](http://ASEcho.org/EchoHawaii) **January 17–21, 2022** The Westin Hapuna Beach Resort Kohala Coast, Big Island, HI

Your Echo Hawaii registration fee includes breakfasts, refreshment breaks, welcome reception, online access to the content on-demand (February 4, 2022 through May 5, 2022), and 29.25

CME credits and MOC and/or MOCA points.

Name: \_\_\_\_\_

FIRST NAME

MIDDLE INITIAL

LAST NAME

Credential:  MD  DO  PhD  RN  RCS  RDCS  Other

Institution: \_\_\_\_\_

Email Address: \_\_\_\_\_

*(All correspondence regarding your registration including your confirmation will be sent to this email address.)*

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State/Province: \_\_\_\_\_ Zip/Postal Code: \_\_\_\_\_ Country: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

ASE encourages participation by all individuals. If you have a disability or other specific needs including dietary, advance notification will help ASE to better serve you. Please contact ASE by email at [Registrar@ASEcho.org](mailto:Registrar@ASEcho.org) or telephone at 919-861-5574.

<b>Registration Fees</b>	<b>THROUGH DECEMBER 17, 2021</b>	<b>AFTER DECEMBER 17, 2021</b>	<b>ON-SITE (JANUARY 16, 2022)</b>
ASE/CSE Physician Member	\$965	\$1,065	\$1,190
Physician Nonmember	\$1,350	\$1,450	\$1,575
ASE/CSE Sonographer Member	\$810	\$910	\$1,035
Sonographer Nonmember	\$990	\$1,090	\$1,215
ASE/CSE Fellows in Training Member	\$680	\$780	\$905
Fellows in Training Nonmember	\$810	\$910	\$1,035

**IMPORTANT NOTE FOR ABSTRACT PRESENTERS:** If you are submitting an abstract for Echo Hawaii 2022 and wish to receive the discounted rate for abstract presenters (\$100 off the posted rates), please do not register prior to receiving an acceptance notification on November 12, 2021. No refunds will be given for registrations made prior to notification. Visit [ASEcho.org/EchoHawaii](http://ASEcho.org/EchoHawaii) for details.

Members of the Canadian Society of Echocardiography are eligible to register at the ASE Member rate.

### Code of Conduct and COVID-19 Statement

ASE is committed to providing a safe, productive, and welcoming environment for everyone attending Echo Hawaii and as such has created the Code of Conduct Policy. ASE has also developed a COVID-19 Statement based on Centers for Disease and Control (CDC) guidance, outlining safety procedures that will be in place during this conference. Please take a moment to review this information online at: [ASEcho.org/Live-Course-Statement](http://ASEcho.org/Live-Course-Statement) and check the box below to finalize your registration.

I have reviewed and agree to ASE's Code of Conduct and COVID-19 Statement.

### Payment Information Payment must accompany this form.

**Check** (payable to American Society of Echocardiography in U.S. dollars drawn on a U.S. bank) **Credit Card:**  Visa  MasterCard  American Express

Cardholder's Name: \_\_\_\_\_

Card Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_ CVC #: \_\_\_\_\_

Registration cancellation fees may apply, and ASE reserves the right to determine if a refund is possible. Please see the full cancellation policy online at [ASEcho.org/EchoHawaii](http://ASEcho.org/EchoHawaii).

AMERICAN SOCIETY OF ECHOCARDIOGRAPHY INC, P.O. Box 890082, Charlotte, NC 28289-0082

Phone: 919-861-5574 • Fax: 919-882-9900 • Email: [Registrar@ASEcho.org](mailto:Registrar@ASEcho.org) • Website: [ASEcho.org/EchoHawaii](http://ASEcho.org/EchoHawaii)



# ASE Foundation

American Society of Echocardiography  
2530 Meridian Parkway  
Suite 450  
Durham, NC 27713

# ECHO HAWAII™

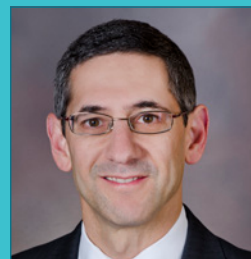
**January 17–21, 2022**

The Westin Hapuna Beach Resort  
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