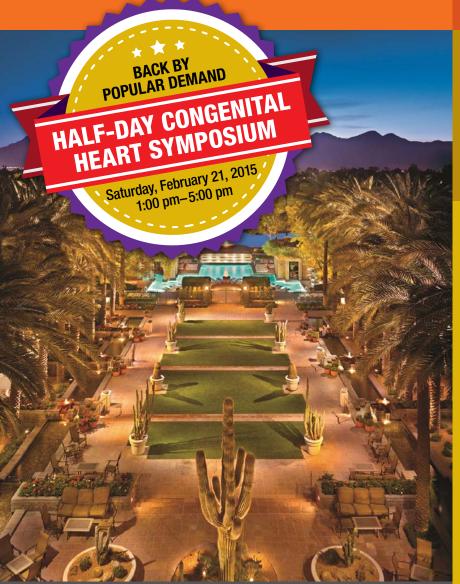
# State-of-the-Art ECHOCARDIOGRAPHY





**Main Course: February 21 – 24, 2015** 

**Preconference Optional Sessions:** 

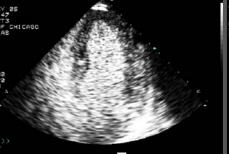
February 20 – 21, 2015 additional fee

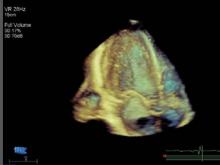
Hyatt Regency Scottsdale Scottsdale, AZ

Course Director:
Vera H. Rigolin, MD, FASE
Course Co-Director:
Steven Lester, MD, FASE
Learning Lab Co-Directors:
Roberto M. Lang, MD, FASE
Bijoy K. Khandheria, MD, FASE

#### **Course Highlights**

- Learning Lab:
  - Two days of hands on learning
- Maintenance of Certification (MOC) Session:
  - Maintain your ABIM board certification in a relaxed setting
- Special symposium on Valvular Heart Disease:
  - Latest trends in the treatment of valve disease
  - The novel uses of echo for the treatment of valvular heart disease
- Half-day session on congenital heart disease
- Update on new echo technologies including strain imaging and 3D echo
- Revisit the old standbys: heart failure, CAD, stress echo, pulmonary hypertension, right heart disease
- Cases, cases, cases









## State-of-the-Art ECHOCARDIOGRAPHY

"I've learned a lot in a very friendly atmosphere. Great speakers, great colleagues, great hotel. Loved it all."

2014 State-of-the-Art Echocardiography Attendee



## Program Information

#### Overview of State-of-the-Art Echocardiography

State-of-the-Art Echocardiography is a premier educational venue for cardiovascular ultrasound in clinical practice. This superbly rated meeting is filled to capacity year after year. Although the course is refocused yearly to ensure the most up to date information, topics will include quantitative echocardiography, valvular and ischemic heart disease, stress/contrast echocardiography, advances in imaging in coronary disease, and myopericardial diseases. A full-day Heart Valve Symposium will be held on Sunday, February 22, 2015, which will include echo innovations and applications for clinical practice.

Participants should have a practical knowledge of echocardiography to fully benefit from this program. The setting is ideal for participants to bring their families and take advantage of some vacation time.

#### **Objectives**

To present recent advances in the diagnosis and treatment of cardiovascular disease to a wide range of cardiovascular health care providers.

To present established and emerging cardiac ultrasound imaging modalities that can be used to provide optimal patient care.

To discuss the ASE guidelines in the context of case examples and clinical applications.

To present information that highlights the utility of an integrated and multidisciplinary approach to patient care.

To provide the opportunity for interaction between experts and practitioners, which will facilitate implementation of information presented into clinical practice.

#### Upon completion of this program, attendees should be better able to:

- Incorporate state-of-the art clinical applications of echocardiography/Doppler ultrasound into clinical decision-making
- Explain how to use color and spectral Doppler in a quantitative fashion
- Identify specific valvular lesions and understand the various medical, interventional and surgical
  options for treatment.
- Assess left and right ventricular function quantitatively
- Describe the value and pitfalls of contrast echo
- Recognize how to implement ASE guidelines in management of patients with valvular heart disease, systolic and diastolic dysfunction
- Apply knowledge of echocardiography in the care of patients with left ventricular assist devices and who have undergone heart transplantation

#### Who Should Attend

State-of-the-Art Echocardiography's program is designed for adult and pediatric cardiologists, cardiovascular surgeons, anesthesiologists, radiologists, nurses, sonographers and fellows in training. Participants should have a practical knowledge of echocardiography.

#### **Accreditation and Designation**

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint providership of the American Society of Echocardiography and the American Society of Echocardiography Education and Research Foundation. The American Society of Echocardiography is accredited by the ACCME to provide continuing medical education for physicians.

The American Society of Echocardiography designates this live activity for a maximum of 36.00 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ASE designates the State-of-the-Art Echocardiography Learning Lab for a maximum of 13.25 hours, MOC (Maintenance of Certification) Session for a maximum of 3.75 hours, and a maximum of 25.25 hours for the Main Conference. Attendees must have registered for the Learning Lab and MOC Session to claim credit for those sessions.

- Main Conference = 25.25
- MOC + Main Conference = 29
- Learning Lab + Main Conference = 36

ARDMS, CCI, and Sonography Canada recognize ASE's certificates and have agreed to honor the credit hours toward their registry requirements for sonographers.

This educational activity has been awarded a maximum of 10 BSE reaccreditation points, with no more than 2 points provided per day of attendance.

The American Society of Echocardiography is committed to ensuring that its educational mission and all educational programs are not influenced by the special interests of any corporation or individual, and its mandate is to retain only those speakers whose financial interests can be effectively resolved to maintain the goals and educational integrity of the program. While a monetary or professional affiliation with a corporation does not necessarily influence a speaker's presentation, the Essential Areas and policies of the ACCME require that any relationships that could possibly conflict with the educational value of the program be resolved prior to the educational session and disclosed to the audience.

#### Learning Lab (additional fee)

A learning lab will be offered two full days this year on Friday, February 20th and Saturday, February 21st. This workshop requires separate registration and is a part of the total hours of educational content offered at the course. This intimate workshop features easy access to faculty members. Individual computer workstations are provided to teach each participant how to quantitate fundamental aspects of clinical echocardiography. The small group environment allows the opportunity for nearly private instruction from top practitioners in the field.

#### Maintenance of Certification (additional fee)

The Maintenance of Certification (MOC) Session will be a half-day session on Saturday, February 21, 2015. Upon completion registrants will be given access to an online module to complete to be awarded MOC credits. This session highlights several key topics areas through a study of clinical patient scenarios provided and analyzed by field experts. Guided by faculty moderators and audience response, topics covered will include cardiomyopathies, aortic regurgitation, endocarditis, mitral stenosis, Doppler, congenital heart disease, closure devices/device placement, image optimization, CRT, stress echocardiography and many more. Registrants for this session will be given access to an online module. Upon completion of this online program they will be awarded 10 MOC credits.

#### Fee

Your registration will be confirmed by email only. Registration fee includes continental breakfasts, breaks, lunches, reception, CME credits, and a memory stick containing course materials.

#### **Cancellations**

If you wish to cancel your participation in this course, your registration fee, less a \$100 administrative fee, will be refunded when written notification is received before Tuesday, January 22, 2015. No refunds will be made after Tuesday, January 22, 2015. No refund will be given for no-shows.

Registration for any ASE course is non-transferable to another participant or another course. In the event that an individual is unable to attend the conference due to inclement weather or chooses not to attend due to a health epidemic, ASE in unable to refund the conference fee. In the unlikely event the meeting/course is cancelled, ASE is responsible only for refund of the registration fee(minus any processing fee) and not for transportation, hotel accommodations or any miscellaneous expenses incurred by the participant.

#### Lodging

To secure your room at the Hyatt Regency Scottsdale, please call 888-421-1442 and state that you will be attending the State-of-the-Art Echocardiography program. The room rate is \$299 single/double a night. A deposit of one night's stay plus tax will be held at the time of reservation. Deposit will be forfeited for any cancellations occurring within 72 hours of arrival.

The room block is scheduled to be held until Monday, January 12, 2015, but may be sold out before this date. Therefore, we advise you to register for the program and reserve your lodging as soon as possible. A resort fee of \$15 per room per day will automatically be applied. This fee includes in-room wireless internet, access to fitness center, shuttle service to local areas, unlimited use of tennis courts, resort bicycles and golf bag storage. When you make your reservation, please be sure to ask about any additional fees, early departure fees, or cancellation penalties.

#### **Transportation**

The Phoenix Sky Harbor International (PHX) Airport is located 18 miles from the Scottsdale area, where the Hyatt Regency Scottsdale is located.

### Invited Faculty

#### **Course Director**

Vera H. Rigolin, MD, FASE

Northwestern University, Chicago, IL

#### Course Co-Director

Steven Lester, MD, FASE

Mayo Clinic, Scottsdale, AZ

#### **Learning Lab Co-Directors**

Roberto M. Lang, MD, FASE

Past President, American Society of Echocardiography University of Chicago, Chicago, IL

Bijoy K. Khandheria, MD, FASE

Past President, American Society of Echocardiography Aurora Healthcare, Milwaukee, WI

#### **Program Faculty**

Robert Bonow, MD

Northwestern University, Chicago, IL

Keith A. Collins, MS, RDCS

University of Chicago Medical Center, Chicago, IL

Bonnie J. Kane, BS, RDCS, FASE

Northwestern University, Chicago, IL

 ${\it Christopher J.\ Kramer,\ BA,\ RDCS,\ FASE}$ 

Aurora Healthcare, Milwaukee, WI

Patrick McCarthy, MD

Northwestern University, Chicago, IL

Sabrina Phillips, MD, FASE

Mayo Clinic, Rochester, MN

Muhamed Saric, MD, PhD, FASE

New York University, New York, NY

Partho P. Sengupta, MD, DM, FASE

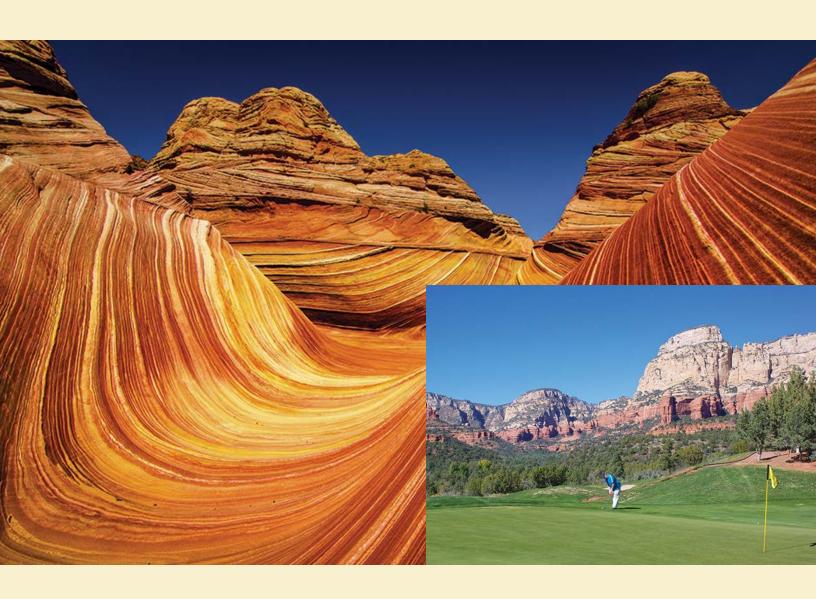
Mount Sinai Heart Medical Center, New York, NY

Sanjiv J. Shah, MD

Northwestern University, Chicago, IL

Matt. M. Umland, RDCS, FASE

Aurora Healthcare, Milwaukee, WI



### Schedule of Events

FRIDAY	, FEBRUARY 20, 2015	9:30 am	Tricuspid and Pulmonary Valves: Comprehensive Evaluation	
7:00 am	Continental Breakfast		R. Lang, K. Collins, B. Kane	
Learning Lab: A Road to Comprehensive Quantification Using ASE Guidelines (additional fee)		10:00 am	Refreshment Break	
8:00 am	Welcome and Introduction to the Classroom  B. Khandheria, R. Lang	10:15 am	Left Ventricular Assist Device; What Are the Measurements, Cases C. Kramer, M. Umland	
8:15 am	Introduction to the Software and Computer M. Umland	10:45 am	Selected Case Studies in 3D Quantification  R. Lang, K. Collins	
8:30 am	Cases in Chamber Quantification: LV and RV Dimensions, 2D and 3D LVEF, LA Volume	11:15 am	Mystery Cases All faculty	
9:00 am	R. Lang, K. Collins  Basic Doppler Calculations: VTI, SV, CO, CL, RSVP B. Khandheria, M. Umland, B. Kane	11:45 am	Question and Answer All faculty	
9:30 am	Diastolic Function 101: Cases to Evaluate  B. Khandheria. M. Umland	12:00 pm 1:00 pm	Lunch  Let Us Read Together and Manage These Cases	
10:00 am	Refreshment Break		B. Khandheria, C. Kramer	
10:15 am	Aortic Valve: Quantify Stenosis; Mean Gradient, Valve Area, TAVR Measurements B. Khandheria, C. Kramer	2:30 pm	Grand Finale: Potpourri of Cases  All faculty	
10:45 am	Aortic Valve: Quantify Regurgitation;	MAINTENANCE OF CERTIFICATION (additional fee)		
10.10 4111	Volume, ERO, Vena Contracta R. Lang, K. Collins, B. Kane	8:00 am	Maintenance of Certification by Case-Based Echocardiography V. Rigolin, S. Shah, S. Lester	
11:30 am	Test Your Measuring Skills: Interpret with the Faculty  All faculty	10:00 am	Refreshment Break	
12:00 pm	Question and Answer All faculty	10:15 am	Maintenance of Certification by Case-Based Echocardiography	
12:15 pm	Lunch	12:00 pm	V. Rigolin, S. Shah, S. Lester	
1:30 pm	Mitral Valve: Quantify Stenosis; Mean Gradient, Valve Area, 2D and 3D B. Khandheria, M. Umland, B. Kane	12.00 pill	Adjourn	
		SATURDAY, FEBRUARY 21, 2015		
2:00 pm	Mitral Valve: Quantify Regurgitation;	CONGENITAL HEART DISEASE SYMPOSIUM		
·	Volume, ERO, Vena Contracta, PISA B. Khandheria, C. Kramer	1:00 pm	Rosetta Stone: An Echo Guide to Congenital Nomenclature	
2:30 pm	Myocardial Mechanics: Global Longitudinal Strain R. Lang, C. Kramer	1:20 pm	S. Phillips  Evaluation of Atrial Septal Defects	
3:15 pm	Refreshment Break	1,40 nm	M. Saric	
3:30 pm	Test Your 3D Cropping Skills  All faculty	1:40 pm	Evaluation of VSD, PDA, Anomalous Veins M. Saric	
4:30 pm	Question and Answer All faculty	2:00 pm	Congenital Left Heart Obstructions I: Cor triatriatum, Supramitral Ring, Congenital Mitral Stenosis S. Phillips	
4:45 pm	Adjourn	2:20 pm	Congenital Left Heart Obstructive Lesions II: SubAS, Supravalvar AS, Coarctation	
SATURE	DAY, FEBRUARY 21, 2015		M. Saric	
7:00 am	Continental Breakfast	2:40 pm	Refreshment Break	
	ab: A Road to Comprehensive Quantification Guidelines (additional fee)	3:00 pm	Tetralogy of Fallot S. Phillips	
8:00 am	Cardio Oncology: What to Measure? How to Measure?  B. Khandheria, C. Kramer	3:20 pm	Ebstein's Anomaly S. Phillips	
9:00 am	Prosthetic Heart Valves: In the Reading Room B. Khandheria, M. Umland	3:40 pm	Transposition of Great Arteries M. Saric	

4:00 pm	Congenital Heart Disease & Pregnancy	-	AORTIC VALVE DISEASE S. Lester, presiding	
	S. Phillips			
4:20 pm	Percutaneous and Surgical Treatment of Congenital Heart Disease Case Presentations	2:00 pm	2D and 3D Imaging of AS  B. Khandheria	
	B. Khandheria, M. Umland	2:15 pm	Low Gradient, Low Output AS with Low and Normal EF	
4:40 pm	Eisemenger Syndrome S. Phillips		S. Lester	
4.E0 nm	·	2:35 pm	When Should a TAVR Be Considered? What Do the	
4:50 pm	Coronary Fistula S. Phillips		Guidelines Tell Us? P. McCarthy	
5:00 pm	Gerbode Defect S. Phillips	3:00 pm	Echo Before, During and After TAVR — What Are the Critical Elements	
5:10 pm	AV Canal		M. Saric	
	M. Saric	3:15 pm	Case Presentations: How Should This Patient Be Treated?	
5:20 pm	Adjourn		AS in High Risk Patient – B. Khandheria AS in Patient with Past Chest Radiation – P. Sengupta	
SUNDA	Y, FEBRUARY 22, 2015	4:00 pm	Bicuspid AV – S. Phillips  Refreshment Break and Visit Exhibits	
7:00 am	Continental Breakfast		TIC VALVES	
VALVE SYN	MPOSIUM	V. Rigolin,		
8:00 am	AHA/ACC Valve Guidelines — What's New? R. Bonow	4:30 pm	Imaging Prosthetic Valves Using ASE Guidelines V. Rigolin	
MITRAL VALVE DISEASE V. Rigolin, presiding		4:45 pm	Prosthetic Valve Dysfunction S. Lester	
	ive Mitral Valve Disease	5:05 pm	Case Presentations:	
8:30 am	2D and 3D Imaging of Degenerative MV Disease	0.00 pm	Prosthetic Valve Stenosis – M. Umland	
	S. Lester		Patient Prosthesis Mismatch – P. Sengupta MV Perivalvular Leak – V. Rigolin	
8:45 am	Surgical Treatment — How Does Echo Help?  P. McCarthy	5:45 pm	Adjourn	
9:00 am	Percutanous Treatment — Critical Role of Echo V. Rigolin	5:45 pm	Welcome Reception and Visit Exhibits	
9:15 am	Case Presentations: Should This Patient Be Treated With Surgery, Clip or Watchful Waiting?  B. Khandheria, M. Saric, P. Sengupta	MONDAY, FEBRUARY 23, 2015		
		6:30 am	Continental Breakfast and Visit Exhibits	
		SUNRISE S	SESSION: ECHO IN SYSTEMIC DISEASE	
10:00 am	Refreshment Break and Visit Exhibits	M. Saric, presiding		
Ischemic I	Mitral Valve Disease	7:00 am	Amyloid	
10:30 am	<b>Surgery for Ischemic MR: When to Repair vs. Replace</b> <i>P. McCarthy</i>	7:15 am	S. Shah Sarcoid	
10:50 am	Clinical Spectrum of Ischemic MR		V. Rigolin	
	R. Bonow	7:30 am	Hemochromatosis	
11:05 am	Case Presentations: Should this Patient Be Treated With Valve Replacement, Repair, Clip or Medical Therapy		M. Saric	
		7:45 am	Carcinoid S. Phillips	
R. Lang, S. Lester, V. Rigolin		HEART FAILURE		
TV VALVE DISEASE R. Lang, presiding		S. Shah, presiding		
11:40 am	Anatomy and Function of the "Other" Valve	8:00 am	The Face of Heart Failure in 2015 S. Shah	
11:55 am	S. Phillips  Surgical Considerations of Tricuspid Regurgitation	8:20 am	Case Presentations: Patients with Low EF 2D Echo Assessment – B. Kane 3D Echo Assessment – K. Collins Strain Analysis – P. Sengupta	
	P. McCarthy  Case Presentations:			
12:15 pm	TV Disease in Patient with MR _ R Khandheria			

**TV Disease in Patient with MR** - B. Khandheria TV Disease Due to Pulmonary Hypertension - C. Kramer

**TV Disease Due to Pacemaker** -R. Lang

**Lunch and Visit Exhibits** 

1:00 pm

9:00 am	Case Presentations: How Do I Use Echo to Assess a Patient With an LVAD or Transplant?  Normal LVAD – C. Kramer  LVAD Complication – M. Umland  Healthy Post Heart Transplant Patient:  What to Look for with Echo – B. Khandheria	5:05 pm	Case Presentations: Chest Radiation Complication — V. Rigolin Breast Cancer Patient Needing Surveillance — P. Sengupta Anthracylin Toxicity — B. Khandheria Pregnancy in a Patient with Past Cancer History — S. Phillips	
	Transplant Rejection – S. Shah	6:00 pm	Adjourn	
10:00 am	Refreshment Break and Visit Exhibits		.v =====	
HEART FAILURE P. Sengupta, presiding		TUESDAY, FEBRUARY 24, 2105		
10:30 am	Heart Failure with Preserved EF:	6:30 am	Continental Breakfast	
10.30 am	The Basics and Beyond S. Shah	R. Lang, pr		
10:50 am	How Do I Use the ASE Guidelines to Measure Diastolic Function? R. Lang Demystifying Strain Imaging	7:00 am	When and Why Do I Give Contrast? — ASE Guidelines K. Collins	
11:10 am		7:15 am	What Agents are Available? How Do They Differ?  M. Umland	
11:30 am	S. Lester Case Presentations:	7:30 am	How Do I Administer Contrast?  B. Kane	
	Hypertension – V. Rigolin Infiltrative Disease – S. Lester	7:45 am	<b>How Do I Prepare My Lab for a Contrast Emergency?</b> <i>C. Kramer</i>	
	Where Strain Helped Me – P. Sengupta Where LV Mechanics Helped – S. Shah	CORONARY ARTERY DISEASE M. Saric, presiding		
12:30 pm	Lunch and Visit Exhibits	8:00 am	Everything You Always Wanted to Know	
1:30 pm	ASE President's Address N. Weissman		About Stress Echo S. Lester	
	THE RIGHT VENTRICLE		Case Presentations:	
V. Rigolin, p	Debate: Anatomy and Function of the Right Ventricle — For or Against the ASE Guidelines For ASE Guidelines — R. Lang		CAD True Positive — K. Collins CAD False Negative — M. Umland CAD False Positive — C. Kramer Hemodynamic Stress Echo — B. Kane	
	Against ASE Guidelines – N. Lester Audience: Cast Your Vote!	9:00 am	<b>Contrast Echo: What is the Word About Safety</b> <i>R. Lang</i>	
2:15 pm	Echocardiography: A PA Catheter in a Box S. Lester	9:15 am	How Do I Set Up My Machine So That My Pictures Are Perfect? M. Umland	
2:35 pm	A Cardiologist's View of Pulmonary Hypertension S. Shah	9:30 am	Case Presentations: A Surprise in the Apex – B. Kane	
2:55 pm	Case Presentations:  Primary Pulmonary Hypertension – M. Saric  Connective Tissue Disease – S. Shah		MI Complication – V. Rigolin Contrast with 3D Echo – K. Collins	
3:15 pm	Refreshment Break and Visit Exhibits	10:00 am	Refreshment Break and Visit Exhibits	
CARDIO-ONOCLOGY		ATRIAL FIBRILLATION B. Khandheria, presiding		
B. Khandhe	ria, presiding			
3:45 pm	Adverse Cardiac Effects of Chemotherapy B. Khandheria	10:30 am	The Anatomy and Echo Assessment of the Left Atrial Appendage B. Khandheria	
4:05 pm	Early Detection of Ventricular Dysfunction Using Strain P. Sengupta	10:40 am	Percutaneous Left Atrial Appendage Closure — The Role of Echo V. Rigolin	
4:25 pm	Adverse Effects of Chest Radiation on the Heart V. Rigolin	11:00 am	Case Presentations: How Contrast Helped Assess the LAA – R. Lang	
4:45 pm	Primary and Metastic Cancers of the Heart M. Saric		Lariat Device — V. Rigolin Watchman Device — M. Saric Surgical LAA Closure Failure — B. Khandheria	
		1:00 pm	Adjourn	



## 28th Annual State-of-the-Art Echocardiography

February 22 – 24, 2015 Hyatt Regency Scottsdale, Scottsdale, AZ

Your State-of-the-Art Echocardiography registration fee includes continental breakfasts, breaks, lunches, reception, CME credits and a memory stick containing course materials. Name: \_\_\_ First Name Middle Initial Last Name Credential: DO PhD RCS RDCS Other Institution: Email Address: (All correspondence regarding your registration including your confirmation will be sent to this email address.) Which is your preferred mailing address? Work/Business Home Street Address: \_\_\_\_ \_\_\_ State/Province: \_\_\_\_\_ Zip/Postal Code: \_\_\_\_\_\_ Country: \_\_\_\_ Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ If you need disability accommodations, please check here and advise us of your needs at least two weeks before the program. Special Needs: ASE encourages participation by all individuals. If you have a disability or other specific needs, advance notification will help ASE to better serve you. Please contact ASE by email at sota@asecho.org or telephone at (919) 861-5574. Special Dietary Needs: Registration Fees: Please circle the registration type you would like to purchase Upgrade to PREMIUM registration to get Access to the 28th Annual State-of-the-Regular/Onsite **Early Bird Art Echocardiography Conference Online Library Premium** Premium **ASE Physician Member** \$725 \$875 \$825 \$975 **Physician Non-Member** \$825 \$975 \$925 \$1075 ASE Sonographer/Allied Health Member/Fellow Member \$550 \$700 \$650 \$800 Sonographer/Allied Health Non-Member/Fellow Non-Member \$650 \$800 \$750 \$900 Regular **Premium** One-day Rate: (only one day can be selected) Sunday, Monday, Tuesday, \$250 \$400 Wednesday) Preconference Optional Session Fees Attendees must register for this workshop in advance in order **ASE** Nonto attend due to limited seating available. Not included in Premium Registration. Member Member \$475 Learning Lab February 20-21, 2015 \$595 \$350 Maintenance of Certification February 21, 2015 \$450 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: Credit Card Billing Address:

Register online and receive an immediate receipt! www.asecho.org/SOTA



American Society of Echocardiography 2100 Gateway Centre Blvd. Suite 310 Morrisville, NC 27560 NON PROFIT ORG US POSTAGE PAID RALEIGH, NC PERMIT #1854

## State-of-the-Art ECHOCARDIOGRAPHY

**Hyatt Regency Scottsdale, Scottsdale, AZ** 

Learning Lab February 20 - 21, 2015

Maintenance of Certification Session February 21, 2015

Main Conference February 22 - 24, 2015



**Vera H. Rigolin, MD, FASE**Course Director

**Steven Lester, MD, FASE**Course Co-Director

Roberto M. Lang, MD, FASE Learning Lab Co-Director

**Bijoy K. Khandheria, MD, FASE** Learning Lab Co-Director