



«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE  
TO PAY A PERMANENT TRIBUTE TO ARCHIMEDES AND GALILEO GALILEI, FOUNDERS OF MODERN SCIENCE  
AND TO ENRICO FERMI, THE "ITALIAN NAVIGATOR", FATHER OF THE WEAK FORCES



# INTERNATIONAL SCHOOL OF CARDIAC SURGERY

## 7th Course: *IMAGING AND THE HEART*

ERICE-SICILY: 9 – 14 APRIL 2017

Sponsored by the: • Italian Ministry of Education, University and Scientific Research  
• Sicilian Regional Government • Policlinico di Monza Foundation • Italian Society for Cardiac Surgery

### TOPICS AND LECTURERS

*Pathological substrates of imaging alterations in cardiovascular diseases*  
*3D echocardiography, magnetic resonance, computed tomography,*  
*nuclear cardiology: Current advances and future developments*  
*3D Echo in the evaluation of mitral valve disease and timing of mitral*  
*valve repair surgery*  
*Quantitative image processing and computational modelling for valvular*  
*assessment*  
*Cognition guided heart surgery. Computer assisted valve analysis by optical*  
*tracking system: An update on degenerative mitral valve regurgitation:*  
*From geometrical echo concepts to successful surgical repair*  
*Role of imaging investigation in the planning of surgical and interventional*  
*procedures to correct degenerative and functional mitral regurgitation*  
*Role of imaging investigation in the evaluation of tricuspid regurgitation*  
*and in the planning of its surgical correction*  
*Right ventricular function and its prognostic role in patients undergoing*  
*valve surgery: How to assess the right ventricle*  
*The role of imaging in the assessment and treatment of advanced heart failure*  
*Imaging techniques for the assessment of myocardial viability and for*  
*the planning of surgical ventricular restoration*  
*The role of imaging in decision-making for the surgical treatment and the*  
*use of mechanical circulatory support devices for end-stage heart failure*  
*Vulnerable plaque of the coronary arteries: The role of CT scan*  
*Molecular MRI. Can we distinguish plaque morphology in coronary*  
*artery disease?*  
*CT coronary arteriogram - does it replace conventional angiography?*  
*Imaging for surgical intervention on the aortic valve and root*  
*Imaging for surgical intervention on the aortic arch and the descending*  
*thoracic aorta*  
*Imaging in the hybrid operating room. How does it really help in TAVR,*  
*TCV and TEVAR? Use of fusion imaging*  
*Preoperative imaging and its intraoperaortic arcative application for*  
*the prevention of symptomatic spinal cord ischemia*  
*Advances in imaging for the assessment of congenital heart disease*  
*Congenital coronary artery anomalies*  
*Magnetic resonance evaluation of Guch patients*  
*Imaging tools for the surgical planning of hypertrophic cardiomyopathy*

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### PURPOSE OF THE COURSE

This interactive Course is dedicated to all health care professionals involved in the diagnosis and the treatment of diseases of the heart and great vessels, especially to cardiologists, cardiac surgeons, radiologists. It is designed to convey the experience of an interdisciplinary Faculty in providing a comprehensive survey of the advances that have taken place in the various imaging techniques pertaining to these fields and in their contemporary and forthcoming adoptions in diverse clinical scenarios. These topics will be highlighted, appraised and discussed in depth, so that, at the completion of the Course, participants will have had the opportunity to gain a thorough knowledge of the state of the art of the most innovative scientific and technological advances in the field of imaging and in their most appropriate implementation in the different aspects of cardiovascular pathology.

### APPLICATIONS

Persons wishing to attend the Course should send an application, preferably by electronic mail, to:

Professor Ugo Filippo TESLER  
email: [hugin@iol.it](mailto:hugin@iol.it)

### Specifying:

- Date and place of birth together with present nationality
- Present position and place of work
- An abstract, if they wish to give a contribution (oral or poster).

### PLEASE NOTE

Participants should arrive in Erice on 9 April not later than 5 pm.

### POETIC TOUCH

According to legend, Erice, son of Venus and Neptune, founded a small town on top of a mountain (750 metres above sea level) more than three thousand years ago. The founder of modern history — i.e. the recording of events in a methodic and chronological sequence as they really happened without reference to mythical causes — the great Thucydides (~500 B.C.), writing about events connected with the conquest of Troy (1183 B.C.) said: «After the fall of Troy some Trojans on their escape from the Achaei arrived in Sicily by boat and as they settled near the border with the Sicilians all together they were named Elymi: their towns were Segesta and Erice.» This inspired Virgil to describe the arrival of the Trojan royal family in Erice and the burial of Anchises, by his son Aeneas, on the coast below Erice. Homer (~1000 B.C.), Theocritus (~300 B.C.), Polybius (~200 B.C.), Virgil (~50 B.C.), Horace (~20 B.C.), and others have celebrated this magnificent spot in Sicily in their poems. During seven centuries (XIII-XIX) the town of Erice was under the leadership of a local oligarchy, whose wisdom assured a long period of cultural development and economic prosperity which in turn gave rise to the many churches, monasteries and private palaces which you see today.

In Erice you can admire the Castle of Venus, the Cyclopean Walls (~800 B.C.) and the Gothic Cathedral (~1300 A.D.). Erice is at present a mixture of ancient and medieval architecture. Other masterpieces of ancient civilization are to be found in the neighbourhood: at Motya (Phoenician), Segesta (Elymian), and Selinunte (Greek). On the Aegadian Islands — theatre of the decisive naval battle of the first Punic War (264-241 B.C.) — suggestive neolithic and paleolithic vestiges are still visible: the grottoes of Favignana, the carvings and murals of Levanzo.

Splendid beaches are to be found at San Vito Lo Capo, Scopello, and Cornino, and a wild and rocky coast around Monte Cofano: all at less than one hour's drive from Erice.

More information about the «Ettore Majorana» Foundation and Centre for Scientific Culture can be found on the WWW at the following address:  
<http://www.ccsem.infn.it>