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### **Innovations in Transthoracic Echocardiography Could Allow for Acquisition of 2D Images Through the Deconstruction of 3D Data Sets**

(SEATTLE, June 10, 2022)—A research study being presented at the American Society of Echocardiography’s (ASE) 33rd Annual Scientific Sessions, June 10-13, 2022, in Seattle, Wash., explores the benefits of conducting three-dimensional echocardiograms (3DE) and how the approach could eventually replace the standard practice of conventional two-dimensional echocardiography (2DE).

In the study, nearly 40 patients underwent a series of standard 2DE heart imaging. The same heart images were then extracted using 3DE data sets from the same patients. Comparing the pair of images, 3DE-derived measurements were able to be captured much faster than those obtained from conventional 2DE images and were potentially more accurate.

“The importance of this work relies on the fact that it provides proof of concept on a new way to acquire an echocardiogram in the future,” says the study’s lead author Dr. Juan Cotella, University of Chicago Medical Center. “Reducing the time necessary to perform an echo might help to achieve automatization in processes, to expedite and optimize our daily activities, and to provide volumes of high-quality data for identification, classification and segmentation of cardiovascular structures.”

Real-time 3DE allows the visualization of all cardiac structures of nearly the entire heart to be captured in one to four heartbeats. These 3D visuals could be used to extract any of the same 2D views obtained from a conventional echocardiogram, potentially replacing the need for multiple 2D image views. Additionally, 3DE-derived images may help overcome some of the limitations of conventional 2DE, such as patient discomfort, timeliness of testing and efficiency.

Highlighting continuing innovations in the cardiovascular ultrasound field, over 416 abstracts are featured, and more than 80 research poster presentations will take place during ASE 2022. This study, titled *A New Way of Acquiring a 2D Transthoracic Echocardiographic Study: Feasibility of Three-Dimensional Echocardiographic Deconstruction*, will be presented on Monday, June 13, 10:00 a.m. to 10:45 a.m. at the Seattle Convention Center. Learn more about ASE 2022 and download the conference’s final event program at [ASEScientificSessions.org](https://ASEScientificSessions.org).

#### **About ASE**

The American Society of Echocardiography (ASE) is the Society for Cardiovascular Ultrasound Professionals™. Founded in 1975, ASE is the largest global organization representing cardiovascular ultrasound imaging. ASE is the leader and advocate for physicians, sonographers, scientists, veterinarians, students, and all those with an interest in echocardiography, setting practice standards and guidelines for the field. The Society is committed to

advancing cardiovascular ultrasound to improve lives. For more information about ASE, visit: [ASEcho.org](http://ASEcho.org) and follow us [@ASE360](https://twitter.com/ASE360).

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