

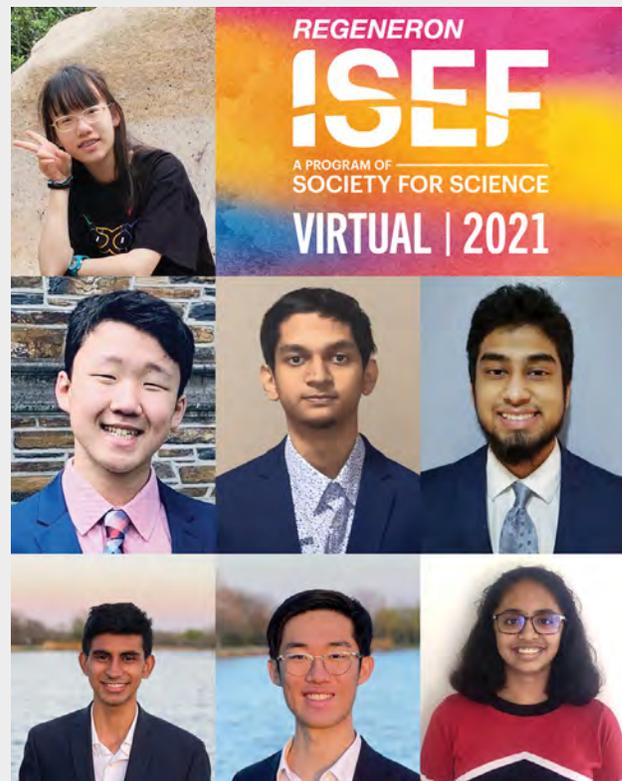
# The ASA at the International Science and Engineering Fair

*Laurie Heller*

The International Science and Engineering Fair (ISEF; see [bit.ly/3ykRaIG](https://bit.ly/3ykRaIG)) is a program of the Society for Science and the Public and is the world's largest international precollege science competition. This year, the Regeneron-sponsored ISEF took place virtually from May 3 to May 20, 2021. As a Special Award Organization (SAO), the Acoustical Society of America (ASA) recognizes and awards acoustics-related projects. The ASA judging team was led by Laurie Heller (Carnegie Mellon University, Pittsburgh, Pennsylvania) and included Inder Makin (A. T. Still University, Mesa, Arizona), Xin Luo (Arizona State University, Tempe, Arizona), and Thomas Kaufman (Otojoy, Scottsdale, Arizona). For more information about ISEF and the role of the ASA, please see the essay by Vipperman [*Acoustics Today* 14(4), 66-68; available at [ow.ly/fLFg50ujrC](https://ow.ly/fLFg50ujrC)].

The judges selected the 35 top projects with acoustics relevance from the 1,800 total submissions. Based on reading the students' poster boards and documentation, the judges selected 13 projects for student interviews. Interviews were conducted virtually; the judges deliberated to narrow it down to four awardees. In addition to cash prizes, these awardees were also invited to attend Acoustics in Focus.

The First Award of \$1,500 in cash (plus \$200 for the school and \$500 for the mentor) went to Wanjia Fu (Shanghai Foreign Language School, Shanghai, China) for research into the acoustics and perception of unwanted noise when playing the Erhu, a challenging Chinese musical instrument. The Second Award of \$1,000 (plus \$100 for the school and \$250 for the mentor) went to Eugene Choi, Irfan Nafi, and Raffu Khondaker (Thomas Jefferson High School for Science and Technology, Alexandria, Virginia) for their sensory substitution prototype that integrated acoustics, beamforming, vibration, and sound classification. The Third Award of \$600 (plus \$150 for the mentor) went to John Rho and



**Figure 1.** Top: Wanjia Fu. Center, left to right: Eugene Choi, Irfan Nafi, and Raffu Khondaker, Bottom, left to right: Govardhan Poondi, John Rho, and Chinmayi Ramasubramanian.

Govardhan Poondi (Plano West Senior High School, Plano, Texas) for a device that utilizes EEG signals to select and enhance an attended speech stream. Honorable Mention went to Chinmayi Ramasubramanian [Sri Kumaran Children's Home (CBSE), Bangalore, India] for classifying the severity of Covid-19 via breath sounds with machine learning. To read the Awardee's abstracts, please visit the Explore Sound website at [exploresound.org/isef-asa-winners](https://exploresound.org/isef-asa-winners). See **Figure 1** for a picture of the winners.

The judges look forward to seeing future accomplishments from the many talented youth who participated in the Regeneron ISEF!

## Contact Information

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