For much of his career, Andrea Prosperetti has been called “Mr. Bubble” by his students for his intense focus on multiphase flows including bubble dynamics and cavitation, the formation of bubbles in a liquid.

With more than 8,000 citations on the Web of Science database and 15,000 on Google Scholar, you might say his work on fluid mechanics, the motion of liquids and gases, is effervescent. “I have done an awful lot of work on bubbles,” Prosperetti says modestly.

Now he can add to his sparkling resume the title of international winner of the Cataldo Agostinelli e Angiola Gili Agostinelli International Prize, given by the Accademia dei Lincei in Rome, Italy. The exclusive organization was founded in 1603 with one of its early members no less than Galileo Galilei, the great scientist who first pointed a telescope to the heavens.

Not a bad organization to have its sights on Prosperetti, Distinguished Professor of mechanical engineering at UH, the Berkhoff Professor of applied physics at the University of Twente in the Netherlands and an elected member of the National Academy of Engineering.
Galileo is said to have been thrilled with his induction into the academy. Prosperetti has a thoughtful reaction to the award.

“What we do is a lonely activity,” said Prosperetti. “We do calculations, we think about abstract things and it’s not obvious that any of that amounts to anything. We do it because we like it and have a genuine faith in science. So when these things happen, awards come, you think the choice you made out of passion and personal interest as a young man was maybe not as misguided as you sometimes feared.”

**Glimmering in his field**

As Prosperetti speaks, nearby is a textbook *Advanced Mathematics for Applications* he wrote in 2011. Prosperetti also serves as the editor-in-chief of the *International Journal of Multiphase Flow* and serves on the editorial board of the *Annual Review of Fluid Mechanics*.

He’s keen on describing multi-phase flows wherein liquids, solids and gases are together.

“In a sandstorm you have sand particles suspended in the wind. Coastlines and rivers are remodeled by the small solid particles transported by the water current. Mixtures of gases and liquids are ubiquitous in the oil industry. If I have all of these entities dispersed in a carrier fluid, how do you handle that system? How do you describe it? How do you model it? You have to understand the physics.”

And through all of his career accomplishments, Prosperetti says that’s the consistent element. “My attention to fundamental physical principles is really what I’ve always tried to do, to have an eye for those aspects of physics out of which everything else comes.”

Like scientific cataloguing, engineering expertise, mathematical explanations and, in this case, scholarly recognition.

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