EDUCATION

Teacher joins star cluster research team

Maumee educator expands his role to working scientist

By JAY SKEBBA | BLADE STAFF WRITER

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Maumee High School physics teacher Sam Evans is shown in his classroom. Mr. Evans will be doing research throughout the year in conjunction with the NASA/IPAC Teacher Research Program.

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A big breakthrough in the science community could be the result of a Maumee High School teacher's research efforts.

Sam Evans is spending the next year assisting an astronomer from the California Institute of Technology as part of the NASA/IPAC Teacher Research Program (NITARP). Mr. Evans will partner with three other educators from around the country, focusing on identifying young stellar objects in a star cluster known as Cepheus-C.

The team will be led by Infrared Processing and Analysis Center's Luisa Rebull. The Infrared Processing and Analysis Center was established at Caltech in 1985, and is home to a massive data archive.

"We're going to be looking through many different wavelengths of light that have been collected from that region to identify baby stars," Mr. Evans said. "We'll try to find out how old they are, what their characteristics are, and what light we can see coming from them."

Cepheus-C is part of a large molecular cloud in the constellation Cepheus. Thousands of baby stars are inside, but the 2016 team was the first group to extensively study the area. They found nearly 250 new young stars.

Mr. Evans found out about the program online, applied, and interviewed with NITARP. His team will try to pick up where the previous group left off. Part of the research includes determining what happens early on in star formation leading to a new planet.

"A lot of science teachers have never actually done real science — myself included," Mr. Evans said. "We are taught science concepts, but we never become professional scientists. I wanted to do some real science and contribute to human understanding in some corner of the universe."

The program has brought together 103 teachers from 34 states over the past 10 years. Teachers take what they learn and share that knowledge with their students to better inform them about science, NASA, and astronomy data.

Mr. Evans plans to take two students with him to Caltech in July, and two more to National Harbor, Md.,

next year for 2018 American Astronomical Society winter meeting. His team will present its findings during the conference.

“Sometimes in class, the activities are sort of shorter and not quite real science because of the constraints of a classroom,” Mr. Evans said. “But they want to expose teachers to real science so they can teach their students about it. They encourage us to get our students involved with the process.”

MHS principal Matt Dick taught science at the school earlier in his educational career. He’s proud to have Mr. Evans representing Maumee.

“He’s brought real-life science and research opportunities to the students at Maumee High School,” he said. “Mr. Evans is an excellent, out-of-the box teacher who refines his professional techniques with recent pedagogical research.”

Mr. Evans, who is in his seventh year teaching at Maumee High School, said about 3,500 professional astronomers attend the annual conference.

He attended this year’s meeting earlier this month in Grapevine, Texas, where he sat in on several sessions and participated in a workshop.

In addition to teaching astronomy and physics, Mr. Evans has a keen interest in climate change. He taught a class at the 577 Foundation in Perrysburg, and traveled to Washington last summer to speak with congressional offices about climate policy.

“There are countless things you can study, but I’m interested in all of it,” he said.

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