To areas of drought and famine before those organizations to more efficiently direct resources, allowing nations, the UN and humanitarian aid agencies to more effectively respond to food crises. Going forward, the scientific advance may help predict the timing and extent of food crises, allowing for a famine three to six months ahead of time. Donors don’t always want to invest in a setting of uncertainty,” he said. “But if we can show that we’re getting really high levels of accuracy in our model, that will improve the confidence in the data and in the recommendation to act. Investing in early action and not just after the fact is critical.”

Existing predictive systems fail to anticipate many crises, resulting in loss of lives and resources, the researchers said. Droughts are the source of two-thirds of those misses. The researchers’ model is called SMART, for Soil Moisture Auto-Regressive Threshold. They achieved their key breakthrough by applying a tool of climate change science called Tipping Point Theory to clarify satellite data that measures the moisture content of soil. Other factors are represented in the model as well, including the price of grain, but they are ancillary contributors, Fisher said. Reliable early-warning data are a driver of funding for humanitarian response to food security crises, said lead author Krishna Krishnamurthy, who works for the UN World Food Programme as an anticipatory action and planning coordinator. “Donors don’t always want to invest in a setting of uncertainty,” he said. “But if we can show that we’re getting really high levels of accuracy in our model, that will improve the confidence in the data and in the recommendation to act. Investing in early action and not just after the fact is critical.”

It takes about four to eight weeks to mount an emergency response to a food security crisis, Krishnamurthy said. So the chance to prepare for a famine three to six months in advance rather than reacting as many as eight weeks after systems have tipped into crisis is an exciting prospect, according to the paper.

Since their paper was published, they have received outreach from a number of actors who support humanitarian interventions, including the World Bank, “which is quite encouraging,” Fisher said.
YOU’RE INVITED!

Join us for these engaging events at Chapman.

There are many terrific Chapman University in-person and virtual events, and neighbors are always welcome. Here are just a few.
Find more at the university’s online events calendar, Chapman.edu/events. Advance tickets for performing arts events may be purchased online at Chapman.edu/tickets.

58th Annual Holiday Wassail Concert
Saturday, Dec. 10, 8 p.m.
Musco Center for the Arts
The beloved Chapman tradition returns to Musco Center! Join us for a magnificent concert of holiday season favorites performed by the Chapman University Singers, University Choir and Treble Choir along with music performed by The Chapman Orchestra. General admission: $25.

Men’s Basketball vs. UC Santa Cruz
Tuesday, Dec. 20, 2 p.m.
Hutton Sports Center
Basketball season is underway! Come cheer on our student athletes as they make a run for the SCIAC championship. To see the full season schedule for both men’s and women’s teams, visit Chapmanathletics.com.

Nochebuena: Christmas Eve in Mexico
Thursday, Dec. 22, 7:30 p.m.
Musco Center for the Arts
Christmas traditions in Mexico vary from region to region and are a blend of Indigenous culture, Spanish heritage and many other influences. This spectacular concert features a dazzling cast of musicians and dancers presenting traditions, costumes and customs that people in Mexico celebrate during the festive season. Tickets start at $25.

Before attending any in-person event, please visit custayinghealthy.chapman.edu for up-to-date information about our COVID-19 status and event guidelines.

You are invited to join us for these engaging events at Chapman.

There are many terrific Chapman University in-person and virtual events, and neighbors are always welcome. Here are just a few.
Find more at the university’s online events calendar, Chapman.edu/events. Advance tickets for performing arts events may be purchased online at Chapman.edu/tickets.

58th Annual Holiday Wassail Concert
Saturday, Dec. 10, 8 p.m.
Musco Center for the Arts
The beloved Chapman tradition returns to Musco Center! Join us for a magnificent concert of holiday season favorites performed by the Chapman University Singers, University Choir and Treble Choir along with music performed by The Chapman Orchestra. General admission: $25.

Men’s Basketball vs. UC Santa Cruz
Tuesday, Dec. 20, 2 p.m.
Hutton Sports Center
Basketball season is underway! Come cheer on our student athletes as they make a run for the SCIAC championship. To see the full season schedule for both men’s and women’s teams, visit Chapmanathletics.com.

Nochebuena: Christmas Eve in Mexico
Thursday, Dec. 22, 7:30 p.m.
Musco Center for the Arts
Christmas traditions in Mexico vary from region to region and are a blend of Indigenous culture, Spanish heritage and many other influences. This spectacular concert features a dazzling cast of musicians and dancers presenting traditions, costumes and customs that people in Mexico celebrate during the festive season. Tickets start at $25.

Before attending any in-person event, please visit custayinghealthy.chapman.edu for up-to-date information about our COVID-19 status and event guidelines.

ORANGE PUBLIC LIBRARY FOUNDATION HONORS CHAPMAN STEMTORS

On Sunday, September 25, Schmid faculty and the STEMTors were honored by the Orange Public Library Foundation (OPLF) for their work with the STEAM for Teens program at the Orange Public Library and History Center. The foundation expressed their gratitude for Chapman’s willingness to share their expertise and resources with the community.

“Chapman University has been an integral part of implementing the STEAM for Teens and Tweens program at the Orange Public Library,” says Lynn-Marie Frediani, the foundation’s executive director. “Chapman Professors and STEMTors have provided hands-on programming, outreach and mentorship in STEAM workshops. Their contribution to STEAM education has exposed the youth of Orange to college-level classes, equipment and STEAM careers.”

STEMtors, which was founded by Vidal Arroyo ’19, Chapman’s first Rhodes Scholar, is a campus club that conducts science programs for middle school and high school students in at-risk neighborhoods.

“I became enthralled with the STEMTors’ purpose in my first semester here,” says Rachel Berns ’24, a health sciences major, “because there are so many systemic barriers between students and STEM. Every student deserves to be able to pursue the sciences with equitable access.”

After the club hit a bit of a hiatus during the pandemic, Berns is excited to bring STEMTors back to life and continue opening doors for young aspiring scientists in the Orange community.