

PRESS RELEASE

Get Real with Math! SCUDEM – Math Modeling Challenge

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During SCUDEM VIII 2023 (SIMIODE Challenge Using Differential Equations) challenge period, 21 October – 14 November 2023, five student teams from Central Academy with preliminary help from coach Brian Reece worked on one of three challenge problems in which they created a mathematical model using differential equations and prepared a ten-minute video presentation on their work for judging. Teams consisted of three or less high school or undergraduate students from one institution as well as teams consisting of participants from different institutions. In all, some 424 students worked as teams, in some cases across the globe, and in most cases from one campus on one of three scenarios and then produced a ten-minute video to share their results and get feedback and scores for awards from some 285 faculty or industry judges.

See <https://qubeshub.org/community/groups/scudem> for complete details and problems.

Students attempted to address a problem using the power and elegance of the mathematics they have learned and do learn in working their problem and then share it with others in their video presentations. This year's challenges from which students selected their problem they wished to work on included, Kangaroo Care, Punishing Infants, and Dog Cannot Catch.

The team consisting of team members Maximillian Roach, Alec Fialkov, and Phillip Williams received an outstanding award from the judges. Some of the judges' comments included.

"This was the best entry that I judged: excellent job! "

"Overall, this stands out as one of the best models and presentations I've evaluated this year. Great job!"

Outstanding Award-winning videos (37) will be placed at SIMIODE's YouTube Channel at <https://www.youtube.com/c/SIMIODE> in early January 2024.

Recent SCUDEM events have had students, coaches, and judges engage from the following countries and regions: Albania, Algeria, Australia, Azerbaijan, Bangladesh, Bosnia and Herzegovina, Brazil, Canada, Chile, China, Columbia, Egypt, France, Germany, Ghana, Hungary, India, Indonesia, Iran, Ireland, Italy, Japan, Jordan, Macao, Malaysia, Mauritius, Mexico, Nepal, New Guinea, Nigeria, Norway, Oman, Pakistan, Philippines, Portugal, Romania, Russia, Saudi Arabia, South Africa, Spain, Sri Lanka, Taiwan, Thailand, Netherlands, Ukraine, United Arab Emirates, United Kingdom, United States, Viet Nam, Zimbabwe.

The event, SCUDEM VII 2023 (SIMIODE Challenge Using Differential Equations), for high school and undergraduate students was sponsored by SIMIODE – Systemic Initiative for Modeling investigations and Opportunities with Differential Equations, a 501(c)3 Nonprofit organization, funded in part by the National Science Foundation in the United States. Anyone interested in modeling with mathematics, specifically with the STEM pivotal material known as differential equations, can join SIMIODE free at <https://qubeshub.org/community/groups/simiode>.