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News Release

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WEST VIRGINIA AND OHIO TEENS TAKE REGIONAL TITLE IN NATION'S TOP HIGH SCHOOL SCIENCE COMPETITION

Siemens Competition Regional Winners Announced for Midwest
Next Stop: National Finals and a Shot at $100,000

Dominic Ludovici of Morgantown, West Virginia, Wins Top Individual Prize;
Catherine McCarthy, Lily Roberts and Rochelle Rucker
of Shaker Heights, Ohio Win Top Team Prize

SOUTH BEND, IN, November 11, 2006 — Astrophysics and Materials Science earned top honors tonight for Dominic Ludovici and Catherine McCarthy, Lily Roberts and Rochelle Rucker in the Midwest Regional Finals of the 2006-07 Siemens Competition in Math, Science & Technology, the nation's premier high school science competition.

The prestigious Siemens Competition, a signature program of the Siemens Foundation, is administered by the College Board. As Siemens Competition National Finalists, tonight's winners will be invited to join an elite group of just six individuals and six teams competing at the Siemens National Finals at New York University in New York this December for scholarships ranging from $10,000 to the top prize of $100,000.

"These young science stars are a shining example of American ingenuity at its most inspiring," said Thomas N. McCausland, chairman of the board of the Siemens Foundation. "They have more than upheld the exceptionally high standards set by their predecessors in this Super Bowl of science competitions."

The students presented their research this weekend to a panel of judges from University of Notre Dame, host of the Midwestern Regional Finals.

Dominic Ludovici, a senior at University High School in Morgantown, West Virginia won the individual category and a $3,000 college scholarship for his project, in which he ran algorithms on data collected from scanning the plane of the galaxy and discovered three new pulsars.

Catherine McCarthy, Rochelle Rucker and Lily Roberts, two seniors and a junior at Hathaway Brown School in Shaker Heights, Ohio, won the team category and will share a $6,000 scholarship for their project which analyzed polymers taken from real NASA spacecrafts to determine which materials perform best in low earth orbit.

The Winners

A Search for Radio Pulsars Using the GMRT (Giant Meterwave Radio Telescope)

Using data collected from the Giant Meterwave Radio Telescope (GMRT) located in Pune, India, Mr. Ludovici used two different algorithms to analyze the data and discovered three new pulsars. Pulsars are important because they can offer a testing ground for many physical theories including Einstein's Theory of Relativity.

"This student's work is absolutely professional. The research reflects hours of data analysis and data extraction using complex, numeric algorithms," said Professor Grant J. Matthews of the University of Notre Dame's Physics Department who also serves as the Director of the Center for Astrophysics. "The discovery of pulsars is almost like finding a new planet and for this young scientist to have found three is truly remarkable."

Mr. Ludovici, plays the trombone in the University High School Jazz Choir and sings in Saint Luke's Catholic Church Adult Choir. Listed in *Who's Who Among American High School Students*, Mr. Ludovici is a member of the National Honors Society, National Spanish Honors Society, Mu Alpha Theta, National Society of High School Scholars, Science Club and Model United Nations. Dr. Maura McLaughlin, Assistant Professor in Radio Astronomy at West Virginia University was his mentor on this project.

International Space Station Experiment to Measure Effects of Atomic Oxygen on Spacecraft Materials

Ms. Catherine McCarthy, Ms. Rochelle Rucker and Ms. Lily Roberts' project in the field of materials science has the potential to maximize the lifespan of future spacecraft. By quantifying the extent of atomic oxygen erosion of a wide variety of polymers that occurred on a low earth orbit spacecraft, their research results could be extremely valuable to spacecraft designers who decide which polymers to use in their designs. Kim de Groh, Senior Materials Research Engineer at NASA, and Bruce Banks, Chief of the Electro-Physics Branch at NASA, were mentors for this team project.

"We were impressed by each team member's breadth of knowledge in the field, the quality of their work and their ability to interpret the results they extracted," said Professor Albert E. Miller of the University of Notre Dame's Chemical and Biomolecular Engineering Department who specializes in materials science research. "Their study has the potential to influence the direction of spacecraft design for NASA and other space agencies around the world."

Ms. McCarthy, a senior, has always been interested in space exploration and has closely watched the NASA shuttle launches. She has five third-author publications and two NASA technical first-author memoranda pending publication. She plays the piano, guitar and clarinet and has been awarded the Hathaway Brown Orchestra Superior Achievement Award (9th grade). A Siemens Westinghouse Semifinalist in 2005, Ms. McCarthy would like to study psychology and mathematics and to pursue a career in math and/or science.

Ms. Rucker, a senior, plays the flute in the Hathaway Brown School Instrumental Ensemble. Combining her affinity for photography, reading and writing short stories, she is both a staff writer and photo editor at Hathaway Brown Review. Additionally, she participates in the Literary Magazine and Environmental Club. Interested in math and science from an early age, Ms. Rucker plans to study biomedical engineering in college in order to help those who are ill.

Ms. Roberts, a junior, is an accomplished harpist and singer. She won the Anne Kinder Eaton Performing Arts Award and the "Emerging Artist" and "Outstanding Vocal Performance" awards for her high school chorus. In addition to performing with the award-winning Hathaway Brown Bravuras, an elite a capella group at her high school, she is Editor-in-Chief of the Hathaway Brown Review (school newspaper), President of Amnesty International and Young Progressives, and volunteers as part of 10,00 Villages. A member of the Blossom Festival Orchestra, the World Youth Symphony Orchestra and the Cleveland Orchestra, Ms. Roberts would like to study political science in college and hopes to combine her interest in government and public policy with science and technology in her career.

Runners-up each received a $1,000 scholarship. In addition, the Siemens Foundation awards $2,000 per project to the high school of every regional finalist.

Runners-up in the individual category were:

- Amardeep Grewal, Detroit Country Day School, Beverly Hills, MI
- Vivek Ratnam, Southview High School, Sylvania, OH
- Joanne Wang, Hathaway Brown School, Shaker Heights, OH
- Dawn Zhao, White Station High School, Memphis, TN

. Team runners-up were:

- Nimit Jain & Harini Srinivasan, International Academy, Bloomfield Hills, MI
- Ang Li, Troy High School, Troy, MI & Yifan Feng, Athens High School, Troy, MI
- Tan Zou & Xingping Shen, Carmel High School, Carmel, IN

The Siemens Competition

The Siemens Competition was launched in 1998 to recognize America's best and brightest math and science students. This year, 1,660 students entered the competition.

Entries are judged at the regional level by esteemed scientists at six leading research universities which host the regional competitions: Carnegie Mellon University (Middle States), University of Notre Dame (Midwest), Stanford University (West), Massachusetts Institute of Technology (New England), Georgia Institute of Technology (South), and The University of Texas at Austin (Southwest).

The Siemens National Finals, judged by a panel of nationally renowned scientists and mathematicians, will take place December 1–4 at New York University in New York.

Log on to www.siemens-foundation.org to watch Dominic Ludovici, Catherine McCarthy, Lily Roberts and Rochelle Rucker during a webcast from the Siemens Competition National Finals in New York. Webcast schedule: Student presentations on Sunday, December 3, 12:00pm-5:00pm EST. Live webcast of the national winners press conference on Monday, December 4, from 8:30am EST.

The Siemens Foundation

The Siemens Foundation, established in 1998, is a national leader in math and science education, providing nearly $2 million in scholarships and awards annually. Based in Iselin, New Jersey, the Foundation's signature programs – the Siemens Competition in Math, Science & Technology, the Siemens Awards for Advanced Placement, and the Siemens Teacher Scholarships – recognize exceptional achievement in science, math and technology. By supporting outstanding students today, and recognizing the teachers and schools that inspire their excellence, the Foundation helps nurture tomorrow's scientists and engineers. The Foundation's mission is based on the culture of innovation, research and educational support that is the hallmark of Siemens' U.S. operating companies and its parent company, Siemens AG. For more information, please visit www.siemens-foundation.org.

NOTE TO EDITORS: Photos of winners available on request.

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