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## MUSKEGO TEEN AWARDED \$25,000 FOR DEVELOPING METHOD TO BETTER UNDERSTAND KNOT THEORY LINKS AND SOLVING 30-YEAR MATHEMATICAL QUESTION

Aayush Karan to be Named a 2019 Davidson Fellow Scholarship Winner

Muskego, Wis. – The Davidson Institute for Talent Development has announced the 2019 Davidson Fellows Scholarship winners. Among the honorees is 17-year-old Aayush Karan of Muskego. Karan won a \$25,000 scholarship for his project, *Generating Set for Nonzero Determinant Links Under Skein Relation*. He is one of only 20 students across the country to be recognized as a scholarship winner.

"I feel incredibly honored to be named a Davidson Fellow and be part of a community of such brilliant and passionate peers," said Karan. "I am even more inspired to think deeply about the inexhaustible beautiful ideas that exist throughout academia."

Knot theory studies the behavior of intertwined tangled loops known as links. One of the driving objectives behind knot theory is determining when two such link structures are actually equivalent. By utilizing a method combining topology, algebra, and combinatorics, the final theorems created by Karan immensely simplify the calculations necessary to completely resolve a 30 -year-old open question in the field of knot theory. Knot theory is used throughout scientific research where Karan's contribution could aid in future medical and medicinal improvements based on improved understanding of DNA.

Karan will attend Harvard in the fall to study mathematics. Outside of mathematics, Karan loves to play the piano and is an avid basketball and football fan. He also enjoys volunteering for the Red Cross and sharing his many interests with the donors.

"We are proud to announce the 2019 Davidson Fellows Scholarship recipients and applaud them for their hard work and achievement in their fields of study," said Bob Davidson, founder of the Davidson Institute. "By being awarded this recognition, these students have shown immense skill and work ethic, and they should be commended as they continue their educational and research journeys while continuing to work to solve some of the world's most vexing problems."

The 2019 Davidson Fellows will be honored at a reception in Washington, D.C., on Friday, September 27, 2019.

The Davidson Fellows Scholarship program offers \$50,000, \$25,000 and \$10,000 college scholarships to students 18 or younger, who have completed significant projects that have the potential to benefit society in the fields of science, technology, engineering, mathematics, literature and music. The Davidson Fellows Scholarship has provided more than \$7.5 million in scholarship funds to more than 300 students since its inception in 2001, and has been named one of the most prestigious undergraduate scholarships by <u>U.S. News & World Report</u>. It is a program of the Davidson Institute for Talent Development, a national nonprofit organization headquartered in Reno, Nev. that supports profoundly gifted youth.

## **About the Davidson Institute**

Founded by Bob Davidson in 1999, the Davidson Institute for Talent Development recognizes, nurtures and supports profoundly intelligent young people, and provides opportunities for them to develop their talents to make a positive difference. The Institute offers support through a number of programs and services, including the Davidson Fellows Scholarship and the <u>Davidson Academy of Nevada</u>. For more information about the 2019 Davidson Fellows, please visit <a href="https://www.DavidsonGifted.org/Fellows-Scholarship">www.DavidsonGifted.org/Fellows-Scholarship</a>.

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