

Fall 2024 Volume 21

# math@andrews



Left to right: Gio Maldonado, Camilo Alvarez, Marinela Cruz, Jamie Shepard, and Trey Matus.

## **Mathematics Summer REU 2024**

Five students from three Adventist universities spent their summer at Andrews University participating in a National Research Experience for Undergraduates (REU) in mathematics. The student researchers were **Camilo Alvarez** (senior BS Math and BA Spanish) and **Trey Matus** (senior BS Math and BS Computer Science) from Andrews University, **Gio Maldonado** from Union Adventist University, and **Marinela Cruz** from Southern Adventist University, as well as **Jamie Shepard** (senior BS Math and BS Computer Science) from Andrews University. They worked with Professor Bosman, chair of the Department of Mathematics, to analyze the snake cube puzzle. The research involved making and proving mathematical conjectures about the puzzle using tools from graph theory, topology, and combinatorics, as well as running a computational analysis of various solutions to the puzzle and its variants.

This is the third year that the program has run at Andrews University under Professor Bosman's leadership but the first summer that it has expanded to include students from other universities. The program has been funded through the Mathematical Association of America, which has provided nearly \$100,000 in funding over the three summers, covering the students' housing expenses and providing each student with a stipend. In addition to providing students with a funded research experience, the program also included professional development talks from invited mathematicians, encouraging students to consider pursuing graduate school and exposing them to a variety of career opportunities. Student participants have presented their research results at regional and national conferences, including the Joint Mathematics Meetings and Young Mathemati-

cians Conference, and have submitted their findings for publication in peer-reviewed journals.

The program has had a special emphasis on serving students from backgrounds underrepresented in mathematics, creating opportunities for them to access the growing demand in mathematical careers and aligning with Andrews' recent designation as the first Hispanic-Serving Institution in Michigan. Andrews graduates and brothers, **Noe Reyes Rivas** (2023 BS Math) and **Moises Reyes Rivas** (2024 BS Math/BA Religion) (*right*) participated in the summer 2021 REU and are now pursuing doctoral study in applied mathematics at Brown University and mathematics at UCLA, respectively. Other former participants are now pursuing doctoral degrees at some of the nation's top mathematics programs or are pursuing a variety of other careers in technology, engineering, medicine, and music.



## **Remembering Donald H. Rhoads**

On September 17, 1937, Donald H. Rhoads was born in Fargo, North Dakota, to James and Mary Rhoads. He was the youngest of three sons, Berton and Gayle being his older brothers. His father, a pastor and denominational worker, moved the family several times including to South Dakota and Minnesota, but Don's formative years were spent in Texas, first in Forth Worth and then in Keene.



After completing his studies at Southwestern Junior College, Don enrolled as a mathematics major at Emmanuel Missionary College where he met his future wife, Jean Schlunt from Drayton Plains, MI. Both graduated from EMC in 1958 and were married shortly thereafter on June 15. In 1963 Jean had their first baby, Karl (AU '86), followed by Anne-Marie in 1965 and Jill in 1968.

Accepted into the Ph.D. program at Rice University, he completed an MA in 1961 and then earned his PhD at the University of Michigan in 1968. In 1962, while working on his graduate work, Don started teaching at Andrews University and continued in that role until 1972 when he took what he planned as a leave of absence for one year, which ended up being 26 years during which he moved his family to Bloomington, Indiana, to start a hi-fi store, Alan Audio. In addition to starting a new business, Don built a house on land a few miles north of Bloomington in a rural area called Modesto. The business had its ups and downs, and Don finally sold it in 1986.

In 1987-88, Don built another house, this one for his parents. In 1992, he added a major addition to his own house. For the next few years, he kept busy in various endeavors including consulting for noise abatement and trying his hand at writing a novel, which he never finished. When a job in the Department of Mathematics at Andrews University became available in 1998, Don applied for his old job and was rehired. In 2000, Don became chair of the department and remained in that role until he retired in 2006.

After retirement Don busied himself with finishing *Euclidean Geometry and its Subgeometries*, a book started by his mentors at Andrews, Edward J. Specht and Harold T. Jones. Don and Dr. Keith Calkins worked together on editing it, and it was published in 2015.

In 2018, shortly after their 60<sup>th</sup> wedding anniversary, Jean fell ill and died of liver cancer in November of that year. After that, Don's life was never really the same, and he referred to this time as the "empty years," which the COVID pandemic did not help. In 2022, he, too, was diagnosed with cancer, acute myeloid leukemia. He underwent chemo and, with the single-mindedness that characterized so much of his life, put one foot in front of another for 14 months. In mid-November 2023, after the doctors told him there was nothing else that they could do, he went on hospice and passed away a month later on December 16 in his own bed in the house he had built 50 years before.

He is survived by his three children, five grandchildren, and numerous great-grandchildren. His funeral was held on January 13, 2024, in the Bloomington Seventh-Day Adventist Church. Always a strong financial supporter of the department, Don Rhoads continued to give even after his death by bequeathing 13 boxes of his mathematics books to the department. His friendship and support will be missed by all who knew him and by the young scholars who will benefit from his generosity in sharing his love of mathematics.

## New Chair for the Department of Mathematics



**Dr. Lynelle Weldon**, our department chair for the past eight years, retired from Andrews University after teaching at Andrews for 26 years. Dr. Weldon began teaching here in 1997 and was the chair since 2016, when she also received the Daniel A. Augsburger Excellence in Teaching award. She has been key in helping the department to refine its developmental mathematics program as well as in teaching Statistics, Linear Algebra, Abstract Algebra, Mathematics for Elementary Teachers II, and Calculus I. Her colleagues and students will miss her presence in the department. To celebrate her retirement, she took a trip to Hawaii this summer.

In her place, **Dr. Anthony Bosman** has taken over the duties of Chair. Dr. Bosman completed his BS in Mathematics at Stanford University in 2012 and his PhD at Rice University in 2017. His interests include low-dimensional topology, knot theory, shake concordance of links, and 4-manifolds. He has taught at Andrews since 2017.



## **Department of Mathematics Welcomes New Professor**

The Department of Mathematics is happy to welcome our newest faculty member, Dr. Said Kas-Danouche, who is now serving as a professor of mathematics at Andrews University. Dr. Kas-Danouche earned a BS and an MS in mathematics from the University of Oriente in Cumana, Venezuela, as well as an MS in applied mathematics and a PhD in mathematical sciences from New Jersey Institute of Technology. He then served as a professor of mathematics at the University of Oriente, teaching a full range of undergraduate and graduate courses including courses in mathematical modeling and statistics, as well as leading a successful applied mathematics research lab where he and his students worked in fluid dynamics with industry partners. Dr. Kas-Danouche has also served as a professor and researcher at Dominican Adventist University and, more recently, as coordinator of mathematics at Lake Nelson Adventist Academy in New Jersey.



In addition to his graduate degrees in mathematics and applied mathematics, Professor Kas-Danouche has earned a Master's in Theology with an emphasis in youth ministries

from the Inter-American Adventist Theological Seminary. He served as a union Public Campus Ministry (PCM) director in the Eastern Venezuelan Union and the Youth Leader Coordinator in the Eastern Venezuelan and the Northeastern Venezuelan conferences. He also held several other ministry roles in local churches, including being a Master Guide Area Coordinator in the New Jersey Conference.

Reflecting his many interests, Professor Kas-Danouche says, "I am passionate about working with students and colleagues in discovering new frontiers in mathematics and innovations that will help to solve real-life problems to help our communities. Through math modeling, I am always striving to further my understanding of what God has created, something that I deeply believe is a way to glorify our Creator. I also love to join young people and young adults in enjoying extracurricular activities such as hiking, collecting stamps and coins from all over the world, and gathering nature items such as different types of sand, seashells, and stones. I am also happy when I can participate in any AYrelated activities such as a Master Guide Club, young adult ministries, and praise and worship services."

### BS Mathematics Degree Offers New Concentrations in Statistics, Theoretical, and Applied Mathematics

The Department of Mathematics at Andrews University is expanding its BS Mathematics degree by adding three concentrations: Theoretical Mathematics, Applied Mathematics, and Statistics. "Mathematical careers are some of the fastest growing and highest paying; these new concentrations will allow students to tailor their degree to their specific career goals, helping them to stand out to prospective employers," notes Professor Anthony Bosman, chair of the Department of Mathematics. "The Bureau of Labor Statistics reports that demand for careers in mathematics and statistics are projected to grow by 30% over the next decade, much faster than average."

The theoretical mathematics concentration gives students a rigorous exposure to the major branches of mathematics, emphasizing logical deduction and proof-writing. This concentration prepares students for graduate school in mathematics as well as a variety of careers that value analytical thinking, including software engineering and law school.

The applied mathematics concentration trains students with the mathematical tools most relevant for solving problems in the natural and social sciences, preparing students for a range of quantitative careers or graduate school. Students often pair this concentration with a major or minor such as engineering, physics, or chemistry where they can exercise mathematical problem solving.

The statistics concentration prepares students to analyze and interpret data utilizing statistical techniques that build upon a solid mathematical foundation, preparing students for a wide range of industry careers. They can couple this degree with relevant coursework in business, biology, or computing to prepare them for a career in actuarial science, biostatistics, or data science.

"The math program at Andrews has an accomplished legacy of sending our graduates to the nation's top doctoral programs and preparing students to use their mathematical problem-solving skills throughout their careers in science, technology, medicine, and many other fields," Bosman comments. "At our faith-based university, we believe students glorify God by reaching their full potential, equipping them to serve in positions of leadership and service in the church and in society."

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# 2023-2024 Graduates

Sandrine Adap (BS Computer Science; Mathematical Studies; J. N. Andrews Honors Scholar; Phi Kappa Phi; PME) (*left*) works in Toronto as a software engineer.

**T Bruggemann** (BS Computer Science; Mathematical Studies; J. N. Andrews Honors Scholar; PME; Sigma Pi Sigma) (*right*) is working as a software developer with plans to pursue a Master's degree in Computer Science, specializing in computer vision.

Samuel Clough (BSE Computer Engineering; BS Computer Science; Mathematical Studies; Physics Studies; Phi Kappa Phi; PME; Sigma Pi Sigma) (*left*) is working on his PhD studies in electrical engineering at Notre Dame under the same professor with whom he studied during his REU in summer 2023.

Keaton Councell (BS Data Science) (right) is working as a data analyst.

**Sarah Durichek** (BS Mathematics) (*left*) has a job in data analytics with the Department of Defense.

**Rekha Isaac** (BS Biochemistry; BS Mathematics; Gamma Sigma Epsilon; J. N. Andrews Honors Scholar; Phi Kappa Phi; PME) (*right*) is attending Loma Linda University Medical School.

**Noah Koliadko** (BSE Computer Engineering; BS Physics; Mathematical Studies; Phi Kappa Phi; PME; Sigma Pi Sigma) (*left*) is attending Duke University to earn a PhD in Physics.

**Noelle Koliadko** (BS Mathematics; PME) (*right*) is working at the Crayon Box full time as she finishes her pre-med classes in preparation for medical school.

**Alex Navarro**—(BS Physics; BS Mathematics; J. N. Andrews Honors Scholar; PME; Sigma Pi Sigma; Theta Alpha Kappa) (*left*) is pursuing a PhD in pure math at University of Maryland, College Park.

**Gabe Palacios** (BS Mathematics; BMUS Music Performance; PME) (*right*) is working in Maryland as he prepares his audition repertoire for a Master's in music performance. Earlier this year, he had the honor of performing at Carnegie Hall (*see article on p. 5*).

**Moises Reyes Rivas** (BS Mathematics; BA Religion; PME; Theta Alpha Kappa) (*left*) is at UCLA studying toward his PhD in mathematics.

**Joey Shiu** (BS Data Science; J. N. Andrews Honors Scholar; PME) (*right*) is working remotely from California for Advent Health as a data analyst.

Jerry Tu (BS Data Science) (*left below*) has returned to China to work as a data ana-\_\_\_\_\_lyst.





Jady Wright (BS Computer Science; Mathematical Studies) (*right below*) hopes to run a game studio.

**William Hin-Kang Yoong—(**BSE Mechanical Engineering; Mathematical Studies; Phi Kappa Phi; PME) (*left*) finished his program of study in Fall 2023 and is working in manufacturing engineering.





**Gabriel Palacios** (2024 BS Mathematics: 2023 BA Music Performance; PME) debuted in Carnegie Hall in January 2024, a major highlight in his musical journey. He began his piano lessons at age five at the Suzuki Institute of Dallas under the guidance of Phoebe Hemingway, later studying cello under Donna Davis. When his family relocated to Khon Kaen, Thailand, as missionaries, Gabe continued his piano education with Dr. Eri Nakagawa at Mahidol University before reconnecting with the Suzuki Institute and studying with Dr. Bret Serrin.

In 2016 Gabe and his family moved to Berrien Springs, where he attended Andrews Academy and began studying piano with Dr. Chi Yong Yun at AU and continued until he graduated from Andrews with his degree in Music Performance in 2023. He accompanied various musical groups throughout academy and university. Other musical highlights include winning the Southern Adventist Concerto Competition (2021) and taking part in showcase recitals in Italy (2021, 2022, 2023). He has collaborated with Southwestern



Michigan College Choir, the Monday Music Club of Michigan, and the Southwest Michigan Symphony Chorus.

## **Mathematics Awards Ceremony 2024**

The 2024 Mathematics Awards Ceremony took place in the Thompson Amphitheater on April 26. The professors awarded 33 class awards to 29 students, many of whom are pictured below (*left to right*).



Justyce Goode; Madeline Jordan; Joey Shiu; Samuel Gomide; Xienne Burch; Skylor Hill; Anna Rybachek; Julia Orsburn; Olivia Jordan; Lucas Lacy; Ellie Dovich; Grant Lee; Sandrine Adap; Jeremy Shin; Daena Holbrook; David Randall; Jenae Rogers; Isaiah Scaffidi; Braeden Peterson; Finn Blake; Nicholas Conroy; Lisabeth Tuffour (cut off). Not pictured: John Alvarez-Wilches; Lydia Cabaltica; Brendon Carlson; Chris Inae; Rekha Isaac; Nathan Onoffrey; Jady Wright.

The scholarship winners this year were (left to right): Justyce Goode (junior BS Math; BS Computer Science; PME)—the Harold T. Jones Endowed Scholarship; Davielle Smith (senior BS Math; BA Music; PME)—the Whitney Wang Watson Endowed Scholarship; Ian Neidigh (senior BS Chemistry [ACS]; Math Studies; PME)—the Louis Ulloth Endowed Scholar-



ship ; Jamie Shepard (senior BS Math; BS Computer Science; PME)—the Harold Buhalts Boyd and Jean Steward Boyd Endowed Scholarship; and Braeden Peterson (junior BS Math; BS Physics: PME)—the Edward J. Specht Endowed Scholarship.



## Research

#### **Books**

Cushing, J. M., Henson, S. M., & Hayward, J. L. (2023). Dynamics of marine vertebrates: Behavioral, population, and evolutionary models. Springer.

Cushing, J. M., Costantino, R. F., Dennis, B., Desharnais, R. A., & **Henson, S. M.** (2023). *Chaos in ecology: Experimental nonlinear dynamics*. Academic Press.

#### **Publications**

Bosman, A. M. (2024). At tro på det utrolige-et univers af undere. Adventnyt, 3:18-20.

Bosman, A. M. 2023. Rethinking Adventist education for the age of Al. Spectrum, 51(3-4):109-115.

Garcia-Roblero, D. G., & Oh, Y. M. (2023). On determining the equation of a Salkowski curve satisfying tau/kappa=1/s, *The PUMP Journal of Undergraduate Research*, 6:346-353.

Köppe, M., Reyes Rivas, M., & Xu, L. (2024). Determining sharp proximity bounds for low row rank and Delta-modularity. Refereed and accepted as a part of the 2024 Informs Optimization Society Conference <u>https://sites.google.com/view/ios2024refereed?</u> usp=sharing&pli=1

Navarro, A. J. R., & Oh, Y. M. (2024). Extending natural mates in Euclidean 3-space and applications to Bertrand pairs. *International Electronic Journal of Geometry*, 17(1):252-258.

Block, D., & Reyes Rivas, M. (2024). The existence and uniqueness of a Nash equilibrium in (short-time) mean field games. <u>https://doi.org/10.48550/arXiv.2210.10117</u>

#### **Presentations**

Adap, S. Thesis defense. "Developing a computer vision-based mobile-assisted learning app for ASL recognition." J. N. Andrews Honors Thesis Symposium, Andrews University, Berrien Springs, MI, April 5, 2024.

Adap, S. Presentation. "Developing a computer vision-based mobile-assisted learning app for ASL recognition." Michigan Academy of Science, Arts & Letters, Lawrence Technological University, Southfield, MI, March 8, 2024.

**Bosman, A. M**. Presentation. "Undergraduate Research Involving Local Moves on Links." MAA MathFest, Indianapolis, IN, August 8, 2024.

**Bosman, A. M**., Davis. C. W., Martin, T., Otto, C., & Vance, K. Presentation. "Topology ∩ teaching: Knot theory research at primarily undergraduate institutions." MathFest 2024, MAA Invited Paper Session, Indianapolis, IN, August 7-10, 2024.

**Bosman, A. M**. Presentation. "Infinite cardinality and the possibility of an infinite past." Association of Christians in the Mathematical Sciences, Dordt University, Sioux Center, IA, May 28 - June 1, 2024.

**Bosman, A. M**. Presentation. "The Miracle of Mathematics." Biblical Foundations and Worldview Symposium, Iberostar Punta Cana, Dominican Republic, May 6-13, 2024.

**Bosman, A. M**., Davis. C. W., Martin, T., Otto, C., & Vance, K. Presentation. "The homotopy trivializing number of a link." Michigan Academy of Science, Arts & Letters Annual Conference, Lawrence Technological University, Southfield, MI, March 8, 2024.

**Bosman, A. M.** Presentation. "They counted on God: Mathematicians as Exemplars of Faith." *Math Teachers' Professional Learning Community*. Lake Union Conference of Seventh-day Adventists. Berrien Springs, MI, November 29, 2023.

**Bosman, A. M**. Video presentation. "Anthony Bosman on God's beauty." Adventist Theological Society, *Life with God*, Season 4: God Is Beauty, Episode 2, October 18, 2023.

**Bosman, A. M**. Presentation [virtual]. "The limits of knowledge and the infinity beyond." *IV Congresso Internacional de Cientistas Ad*ventistas, Brasilia, Brazil, October 13-15, 2023.

Bosman, A. M. Presentation. "They counted on God: Mathematicians as exemplars of faith." North American Division Educators' Convention, Phoenix, AZ, August 7-10, 2023.

**Bosman, A. M**. Presentation [virtual]. "Told is not taught: Designing a flipped course." *Higher Education Adventist Society Virtual Conference,* June 1, 2023.

Bruggemann, T. Presentation. "Flat occlusion removal for 2D image to hand mesh models." Michigan Academy of Science, Arts & Letters, Lawrence Technological University, Southfield, MI, March 8, 2024.

**Isaac, R. L.** Thesis defense. "Induction and modulation of apoptosis in breast cancer cells MDA-MB-157 and 93A by Chinese medicinal herbs *Oldenlandia diffusa* and *Bryophyllum pinnatum*." J. N. Andrews Honors Thesis Symposium, Andrews University, Berrien Springs, MI, April 5, 2024.

Kang, J. H. Presentation. "Positive solutions to a developed elliptic model." Kangwon Kyungki Mathematical Society Conference, Chuncheon, Korea, June 21, 2024.

Koliadko, N. L. Presentation. "A general predator-prey model with combined growth terms." Michigan Academy of Science, Arts & Letters, Lawrence Technological University, Southfield, MI, March 8, 2024.

Navarro, A. J. R. Thesis defense. "Extending natural mates and co-natural mates in Euclidean 3-space." J. N. Andrews Honors Thesis Symposium, Andrews University, Berrien Springs, MI, April 5, 2024. (continued next page)

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Navarro, A. J. R., & Oh, Y. M. Presentation. "Extending natural mates and co-natural mates in Euclidean 3-space." Michigan Academy of Science, Arts & Letters, Lawrence Technological University, Southfield, MI, March 8, 2024.

**Neidigh, I.** Thesis defense. "Understanding the mechanism for separation of phosphorothioate oligonucleotides." J. N. Andrews Honors Thesis Symposium, Andrews University, Berrien Springs, MI, April 5, 2024.

**Oh, Y. M.** Presentation. "Several kinds of Frenet curves in R^3 and their relations." Kangwon Kyungki Mathematical Society Conference, Chuncheon, Korea, June 21, 2024.

Rogers, J. A. L. Thesis Defense. "Analyzing the effect of targeted activities on linear concept understanding." J. N. Andrews Honors Thesis Symposium, Andrews University, Berrien Springs, MI, April 5, 2024.

Shepard, J. P. Thesis Defense. "The solvability and difficulty of the snake cube puzzle and its topological variants." J. N. Andrews Honors Thesis Symposium, Andrews University, Berrien Springs, MI, April 5, 2024.

Shepard, J. P. Presentation. "The solvability and difficulty of the snake cube puzzle and its topological variants." Michigan Academy of Science, Arts & Letters, Lawrence Technological University, Southfield, MI, March 8, 2024.

Shiu, J. H. Y. Thesis Defense. "Improving ethanol fermentation estimation with generative data augmentation in a machine learning-driven soft sensor." J. N. Andrews Honors Thesis Symposium, Andrews University, Berrien Springs, MI, April 5, 2024.

## Math Center Remodel Project Update

In our last two newsletters, we highlighted our ongoing project to update the outdated furniture in the Math Center. We are pleased to announce that this past spring the Department of Mathematics took the next step in this renovation when, with the help of 19 donors on Giving Day, we raised \$4,535.92, some of which we used to purchase six trapezoidal tables that are easily movable to allow flexibility for different classroom configurations. Thanks go out to all of the alumni who helped with this project! Our next multi-phase project will be to replace the desks in our classrooms with tables and chairs to allow different configurations there.

You can give online at <u>www.andrews.edu/go/give</u> and choose **Department of Mathematics 270500** from the drop-down menu. Just put *Classroom remodel* in the instructions if you'd like to help with this ongoing project.

**NOTE:** A special thanks to the anonymous donor who in December 2023 gave the Department \$3,500.00, making the total from anonymous donors \$4,306.14 last year. We really appreciate the generosity of our alumni!



## Andrews University Listed Among the Top 20 Christian Colleges

For the second year in a row Andrews University ranked in the top 20 <u>Best Christian Colleges in America</u> according to *Niche.com's* latest ranking, landing 19th among the more than 500 Christian colleges and universities included in the list, higher than any of the other Adventist universities.

*Niche* uses a <u>seven-step approach</u> that involves gathering data from users and from student-submitted surveys as well as facts about the schools. Compiling the data is a complicated process that involves removing or adjusting inaccurate information or exceptions, re-compiling, and then repeating the process over several times. At the end of the lengthy process, they evaluate the data for each college and arrive at a numerical ranking.

Facts Concerning the Fall 2024 Department of Mathematics Student Body											
Major	Total	F	м	FR	so	JR	SR	Dual Majors	Three Majors	Four Majors	Other Majors
BS Data Science	3	3	0	0	1	1	1	0	0	0	
BS Mathematics	18	3	15	2	2	4	10	12	1	0	1 Chemistry, 6 Computer Science, 1 Engineering, 1 Music, 2 Physics, 1 Physics Studies, 1 Spanish Translation
BS Mathematics Education *	4	3	1	2	0	0	2	3	1	0	1 Religion, 4 Secondary Education
Mathematical Studies	5	2	3	0	2	0	3	4	1	0	2 Chemistry [ACS], 2 Engineering, 1 Physics, 1 Physics Studies
Mathematics Minor	11	2	9	1	1	0	9	1	0	0	1 Biochemistry, 3 Computer Science, 1 Elementary Ed, 4 Engineering, 2 Religion, 1 Secondary Education

\*With the termination of the BS Mathematics Education program, new students will pursue a BS or BA Secondary Education with a Math emphasis.

#### **Andrews University**

#### **Department of Mathematics**

#### Programs

BS in Mathematics Concentrations: Theoretical Mathematics Applied Mathematics Statistics Mathematical Studies Major Mathematics Minor Mathematics Education Minor Mathematics of Economics and Finance Minor

#### **PME** Michigan Gamma Chapter

\*Ian Neidigh, President \*Levi Walker, Vice President \*Jo Roosenberg, Secretary-Treasurer \*Dr. Joon Hyuk Kang, Advisor

eigen\* Mathematics & Physics Club

\*Ian Neidigh, Mathematics President \*Yoel Kim, Physics President \*Jo Roosenberg, Secretary-Treasurer

#### **Mission Statement**

Through teaching, research, and service, the Department of Mathematics seeks to provide leadership by:

\*Preparing a diverse student body with the mathematical understanding, problem-solving skills, and dispositions that enable career excellence;

\*Increasing mathematical and scientific knowledge through publication and presentation and engaging undergraduates in research;

\*Supporting the broader mathematics education community and mentoring others for generous service through a committed Christian life.

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Front row (left to right): Jason DeWitt (senior BSE Mechanical Engineering/Math minor), Luis Alfaro (senior BSE Mechanical Engineering/Math minor), Gabi Srikureja (senior BS Chemistry [ACS]/Mathematical Studies), Levi Walker (senior BS Computer Science; BS Mathematics), Ellie Dovich (senior BA Communications/Public Relations/Math minor), Olivia Jordan (senior BS Mathematics Education/Secondary Education/BA Religion), Daena Rane Holbrook (junior BSE Mechanical Engineering), Joshua Katsuren (senior BSE Electrical Engineering). Back row (left to right): Matthew Lechleitner (senior BSE Mechanical Engineering), Dawson Par (senior BS Computer Science), Josiah Deonarine (senior BS Biophysics), Ian Neidigh (senior BS Chemistry [ACS]/ Mathematical Studies), Jo Roosenberg (junior BS Mathematics), Ian Hildebrant (senior BSE Electrical Engineering). Not pictured: Braeden Peterson (senior BS Mathematics/BS Physics).

#### **Pi Mu Epsilon Induction**

The Michigan Gamma Chapter of Pi Mu Epsilon inducted 15 new members on Friday, March 29th. Ian Neidigh (senior BS Chemistry [ACA]/Mathematical Studies) is the 2024-25 PME president with Levi Walker (senior BS Computer Science/BS Mathematics) as his vice-president. The two chose Jo Rosenberg (junior BS Mathematics) as their secretary-treasurer.

Dr. Anthony Bosman gave a talk, "Pascal's Triangle and Moser's Circle," while the group of members, new members, and family and friends enjoyed pizza and juice.



For more pictures, go to our AU Mathematics page on Facebook or Instagram. And while you are online, check out our Math at Andrews YouTube channel.

Email <u>math@andrews.edu</u> if you would like to receive a virtual copy of the newsletter next year. And send us any news that you'd like to share.

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