



Panamanian Foundation for the Promotion of Mathematics

FUNDAPROMAT

The Panamanian Foundation for the **Promotion of Mathematics** (FUNDAPROMAT) seeks to change the world's perception so that one and all can experience mathematics as accessible, relevant and inherently joyous.



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Join our math outreach activities, which are free and open to the general public!

Visit our Calendar of Events at fundapromat.org/ en/events

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JANUARY 2024

21 2:00 PM -5:00 PM



Math Carnival in Casco Antiguo

On Sunday, January 21st, 2024 from 2 pm until 5 pm we ran a Math Carnival in Casco Antiguo full of fun math activities for all ages. This free in-person event for the entire family highlighted the Panamanian female mathematicians Yandra Gonzalez, Kiara Barrios and Lorena Arias and took place at the Panama Canal Museum in Casco Antiguo, Panama City.









26 10:00 AM -

11:00 AM



Training Session for the JUPA Foundation

On Friday, January 26th, 2024 we ran an in-person training session in recreational mathematics for a team of teachers of the Jewish Panamanian Foundation (JUPA) in their Superate Center. This Foundation is a non-profit organization that educates and trains kids, teenagers and adults in inequality and social risk.







27

10:00 AM -12:00 PM



Math Party at the Superate Center in La Chorrera of the Alberto Motta Foundation

On Saturday, January 27th, 2024 we were invited by the Alberto Motta Foundation to run a Math Party for a group of 15 to 16 year-old teenagers at the Superate Center in La Chorrera of the Alberto Motta Foundation.









29

1:30 PM -3:00 PM



Origami Workshop at the Summer Camp of Felipe Motta

On Monday, January 29th, 2024 we ran an origami workshop at the Summer Camp of Felipe Motta to 13 to 17 year-old teenagers, who are children of the employees of the company, in Tocumen Commercial Park.









FEBRUARY 2024

1:00 PM -2:00 PM



Math Party for the Creative Space Foundation

On Thursday, February 1st, 2024 we were invited to run a Math Party for a group of 12 to 15 yearold teenagers of the Creative Space Foundation in Casco Antiguo, Panama City.



2:00 PM -5:00 PM



FUNDAPROMAT Stand in the Children's Fair "Back to School" at the Super Center El Dorado

On Friday, February 2nd, 2024 we were invited to have a stand from 2 pm until 5 pm in the Children's Fair "Back to School" at the Super Center El Dorado with fun math activities. This in-person event took place at the Central Plaza of the Super Center El Dorado, Panama City.









3 10:00 AM -11:30 PM



Math Jamboree #101

The Math Jamboree #101 took place on Saturday, February 3rd, 2024 from 10 am until 11:30 am. A Jamboree is a joyful and loud celebration or party. The Math Jamboree is an opportunity for the entire family to enjoy exploring the beauty and richness of mathematics by sharing their ideas on the recreational activity that we present during the virtual event.

In this Math Jamboree #101, participants were separated into groups depending on whether they are kids or adults and explored the interactive activity called "Willy Wonka's Factory" in an environment of collaboration and a lot of fun. This virtual event was free and open to the general public. We thank Marleny Vargas for designing this activity for FUNDAPROMAT.







3 10:00 AM -12:00 PM



Math Party at the Superate Center in San Miguelito of the Alberto Motta Foundation

On Saturday, February 3rd, 2024 we were invited by the Alberto Motta Foundation to run a Math Party for a group of 15 to 18 year-old teenagers at the Superate Center in San Miguelito of the Alberto Motta Foundation.











FEBRUARY 2024

6 10:00 AM -

12:00 PM



Mini Math Party for Morgan & Morgan

On Tuesday, February 6th, 2024 we were invited to run a Mini Math Party for a group of 5 to 9 year-old kids, who are children of the employees of Morgan & Morgan and related companies.









8

5:00 PM -6:00 PM



Webinar on Shorter Trips with Mathematics

The Webinar on Shorter Trips with Mathematics took place on Thursday, February 8th, 2024 from 5 pm until 6 pm, with Yasmin Rios Solis, Professor of Mathematics at the Engineering and Science School of the Monterrey Institute of Technology in Mexico, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker started the virtual event by explaining what the problem of the travelling salesman is and what is known so far about this algorithmic problem that is focused on optimization. Yasmin Rios Solis also shared how this math problem is related to urban transportation planning, agriculture, manufacture, among other applications. The speaker also highlighted the importance of knowledge in mathematics and programming to solve everyday situations. This virtual event was co-organized with the Mexican Mathematical Society (SMM).



10:00 AM -11:00 AM



Virtual Origami Class #107

The Virtual Origami Class #107 took place on Saturday, February 10th, 2024 from 10 am until 11 am, with the origami artist David Medina as our invited speaker. This virtual event was free and open to the general public.

For this class, participants needed one 15 cm x 15 cm paper square and colored markers. David Medina then taught how to fold a heart bookmark, which is a traditional origami model. This origami design is appropriate for 8-year-olds and above. This webinar was our first Virtual Origami Class of 2024.





Thirty-Third Math Webinar in English

The thirty-third Math Webinar in English took place on Thursday, February 15th, 2024 from 5 pm until 6 pm with Geillan Aly, Founder of Compassionate Math, as our invited speaker. This virtual event was free and open to the general public.

In this thirty-third Math Webinar in English, Geillan Aly presented on "A New Day: Working Through Mathematical Traumas". The speaker explained how past math experiences can result in people feeling that they are not good at math. Geillan Aly gave the participants the opportunity to explore and reflect on their feelings towards mathematics. The speaker highlighted the following main messages: 1. We are not alone, 2. Our past experiences are most likely not tied to us as individuals but are a result of sociohistorical forces. Geillan Aly then encouraged participants to analyze their personal relationship with mathematics and reorient it based on what they had discovered. This virtual event was co-organized by the Mathematical Association of America (MAA).





NG THROUGH







FEBRUARY - MARCH 2024

17 10:00 AM -

12:00 PM



Math Party at the Superate Center in Colon of the Alberto Motta Foundation

On Saturday, February 17th, 2024 we were invited by the Alberto Motta Foundation to run a Math Party for a group of 14 to 16 year-old teenagers at the Superate Center in Colon of the Alberto Motta Foundation.









19
10:00 AM 11:00 AM



Training Session in the Teacher Development Seminar of the JUPA Foundation

On Monday, February 19th, 2024 we were invited to run an in-person training session in recreational mathematics in the Teacher Development Seminar organized by the Jewish Panamanian Foundation (JUPA) and endorsed by the Ministry of Education (MEDUCA) of Panama.





28
6:00 PM - 7:00 PM



Kirigami Workshop at the Panama American Center

On Wednesday, February 28th, 2024 we were invited by the United States Embassy in Panama to run a kirigami workshop aimed at 12 year olds and above at the Panama American Center in La Plaza of the City of Knowledge, Panama City.









1

2:00 PM -

3:00 PM



Kirigami Workshop for the Brilliant Minds Foundation

On Friday, March 1st, 2024 we were invited by the Brilliant Minds Foundation to run a kirigami workshop aimed at 12 to 17 year-old teenagers at the Brilliant Minds Clubhouse Corner, 1st Floor, Royal Blue Plaza, San Francisco, Panama City.











MARCH 2024

2 10:00 AM -

11:30 AM



Math Jamboree #102

The Math Jamboree #102 took place on Saturday, March 2nd, 2024 from 10 am until 11:30 am. A Jamboree is a joyful and loud celebration or party. The Math Jamboree is an opportunity for the entire family to enjoy exploring the beauty and richness of mathematics by sharing their ideas on the recreational activity that we present during the virtual event.

In this Math Jamboree #102, participants were separated into groups depending on whether they are kids or adults and explored the interactive activity called «Snail» in an environment of collaboration and a lot of fun. This virtual event was free and open to the general public. We thank Jeanette Shakalli, Rafa Oliver and Tiago Hirth for designing this activity for FUNDAPROMAT.



The control of t

7

5:00 PM -6:00 PM



Webinar on Geometry and Soccer

The Webinar on Geometry and Soccer took place on Thursday, March 7th, 2024 from 5 pm until 6 pm, with Melissa Castillo Medrano, Deputy Chief of the area of Mathematics of the Newton School and teacher of the Education Department at the Peruvian University of Applied Sciences in Peru, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker started the virtual event by explaining what regular polygons and regular polyhedra are. Melissa Castillo Medrano then mentioned that a traditional soccer ball has 12 pentagons and 20 hexagons, that is it has 32 faces in total. The speaker also presented Euler's Theorem and described how we can construct our own soccer ball, which is a truncated icosahedron. This virtual event was co-organized with the Peruvian Association of Research in Math Education (APINEMA).







9 10:00 AM -11:00 AM



Kirigami Workshop for FAS Panama

On Saturday, March 9th, 2024 we were invited by the Social Action Foundation (FAS Panama) to run a kirigami workshop aimed at 12 year olds and above at FAS Panama, Local 216, City of Knowledge, Panama City.









12

11:00 AM -12:00 PM



Math in Disney and Pixar Movies in Veraguas

On Tuesday, March 12th, 2024 the keynote speech "Math in Disney and Pixar Movies" took place from 11 am until 12 pm at the Stanford Hill Library, University Extension of Veraguas, Specialized University of the Americas (UDELAS). This free in-person event for the entire family was given by our international speaker Michael Dorff from the United States, as part of the celebration of the International Day of Mathematics.











MARCH 2024

13
11:00 AM

12:00 PM



Math in Disney and Pixar Movies in West Panama

On Wednesday, March 13th, 2024 the keynote speech "Math in Disney and Pixar Movies" took place from 11 am until 12 pm at the Everardo Ortega Conference Room, Regional Center of West Panama of the Technological University of Panama (UTP). This free in-person event for the entire family was given by our international speaker Michael Dorff from the United States, as part of the celebration of the International Day of Mathematics.









14

11:00 AM -12:00 PM



Math in Disney and Pixar Movies in Panama

On Thursday, March 14th, 2024 the keynote speech "Math in Disney and Pixar Movies" took place from 11 am until 12 pm at the Balboa Room I of the Miramar Intercontinental Hotel, Panama City. This free in-person event for the entire family was given by our international speaker Michael Dorff from the United States, as part of the celebration of the International Day of Mathematics.



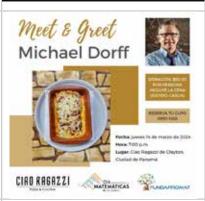






14 7:00 PM -

9:00 PM



Meet & Greet Michael Dorff

On Thursday, March 14th, 2023 the Meet & Greet Michael Dorff took place, which was a fundraising dinner to gather donations to cover the FUNDAPROMAT projects, in which participants had the opportunity to share with our international guest while enjoying an exquisite dinner at the Ciao Ragazzi restaurant in Clayton, Panama City.









15

11:00 AM -12:00 PM



Math in Disney and Pixar Movies in Colon

On Friday, March 15th, 2024 the keynote speech "Math in Disney and Pixar Movies" took place from 11 am until 12 pm at the San Lorenzo Room, Radisson Colon Hotel 2000. This free in-person event for the entire family was given by our international speaker Michael Dorff from the United States, as part of the celebration of the International Day of Mathematics.







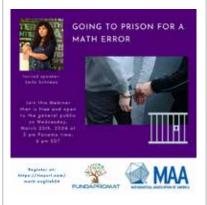




MARCH 2024

20

5:00 PM -6:00 PM



Thirty-Fourth Math Webinar in English

The thirty-fourth Math Webinar in English took place on Wednesday, March 20th, 2024 from 5 pm until 6 pm with Leila Schneps, Research Director at the Scientific Research Center in Paris, France, as our invited speaker. This virtual event was free and open to the general public.

In this thirty-fourth Math Webinar in English, Leila Schneps presented on "Going to Prison for a Math Error". The speaker explained how mathematics appears in criminal trials in different ways, from calculating the probability that a crime took place to using statistics to identify physical traces, from analyzing DNA samples to determine whether the accused was present to calculating the weight of a given piece of evidence. Leila Schneps described examples of typical situations based on real-life trials to emphasize the dangers of leaving mathematical estimations to our intuition. This virtual event was co-organized by the Mathematical Association of America (MAA).



24

2:00 PM -5:00 PM



Math Carnival in North Panama

On Sunday, March 24th, 2024 from 2 pm until 5 pm we ran a Math Carnival in North Panama full of fun math activities for all ages. This free in-person event for the entire family highlighted the Panamanian female mathematicians Astrid Acosta, Renate Huebner and Daysi Jackson and took place at the Villa Zaita Mall, main entrance, next to the pedestrian bridge, North Panama.









28

5:00 PM -6:00 PM



Webinar on Mathematical Messages for Aliens

The Webinar on Mathematical Messages for Aliens took place on Thursday, March 28th, 2024 from 5 pm until 6 pm, with Jorge Luis Arroyo, Professor of Mathematics at the Veracruz Anahuac University in Mexico, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker started the virtual event by defining what is a language and describing several examples of languages. Jorge Luis Arroyo then explained the language of the universe throughout history, mentioning a few significant characters like Ptolemy, Newton and Einstein. The speaker also pointed out that in the Voyager missions, space probes were sent to the outer planets.



30 10:00 AM -11:00 AM



Virtual Origami Class #108

The Virtual Origami Class #108 took place on Saturday, March 30th, 2024 from 10 am until 11 am, with the origami artist David Medina as our invited speaker. This virtual event was free and open to the general public.

For this class, participants needed six $10 \text{ cm} \times 10 \text{ cm}$ paper squares and one 7.5 cm $\times 7.5 \text{ cm}$ paper square. David Medina then taught how to fold a mathematical game with L-triominoes, which is an origami model created by the speaker. This origami design is appropriate for 8-year-olds and above.





APRIL 2024

9:00 AM -12:00 PM



FUNDAPROMAT Stand at the University Fair of the Interamerican University of Panama

On Tuesday, April 2nd, 2024 we were invited by the Volunteer Foundation of Panama to have a stand from 9 am until 12 pm at the University Fair of the Interamerican University of Panama (UIP) with fun math activities. This free in-person event took place at the Central Plaza of the Interamerican University of Panama (UIP), Panama City.



Thirty-Fifth Math Webinar in English

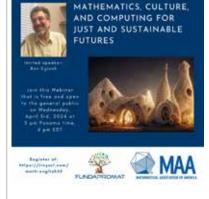
The thirty-fifth Math Webinar in English took place on Wednesday, April 3rd, 2024 from 5 pm until 6 pm with Ron Eglash, Professor at the School of Information of the University of Michigan, as our invited speaker. This virtual event was free and open to the general public.

In this thirty-fifth Math Webinar in English, Ron Eglash presented on "Mathematics, Culture, and Computing for Just and Sustainable Futures". The speaker described some of the global challenges that we face today and explained how mathematical models can translate ancient traditions, based on mutual aid among people and nature, into technologies for solidarity. Ron Eglash presented how from African fractals to indigenous biocomplexity, the intersections between math, computing and culture offer new pathways to just and sustainable futures. The speaker also encouraged participants to use the free simulation tools available on the website https://csdt.org in which we can create our own designs. This virtual event was co-organized by the Mathematical Association of America (MAA).



3

5:00 PM -6:00 PM



5 2:00 PM -3:00 PM



Origami Workshop at Las Mañanitas Youth Center and Library

On Friday, April 5th, 2024 we were invited by the Alumni Association of Las Esclavas School to run an origami workshop for a group of twenty 8 to 13 year-old kids at Las Mañanitas Youth Center and Library.



Math Jamboree #103

The Math Jamboree #103 took place on Saturday, April 6th, 2024 from 10 am until 11:30 am. A Jamboree is a joyful and loud celebration or party. The Math Jamboree is an opportunity for the entire family to enjoy exploring the beauty and richness of mathematics by sharing their ideas on the recreational activity that we present during the virtual event.

In this Math Jamboree #103, participants were separated into groups depending on whether they are kids or adults and explored the interactive activity called «Combiku» in an environment of collaboration and a lot of fun. This virtual event was free and open to the general public. We thank Marleny Vargas for designing this activity for FUNDAPROMAT.



6 10:00 AM -11:30 AM





APRIL 2024

10

5:00 PM -6:00 PM



Forty-Fourth Virtual Encounter with Outstanding Mathematicians

The forty-fourth Virtual Encounter with Outstanding Mathematicians took place on Wednesday, April 10th, 2024 from 5 pm until 6 pm. Christa Amezcua, Professor of Mathematics at the Los Altos School Center in Guadalajara, Mexico, was our invited speaker. This virtual event was free and open to the general public.

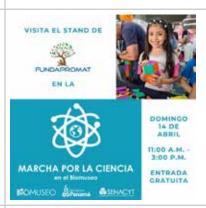
On this forty-fourth Encounter, Christa Amezcua shared anecdotes of her personal life and her professional journey as a female mathematician. The speaker also presented on "Mathematics in the Musical Scale." In this virtual event, Christa Amezcua explained where the notes of the musical octave came from. The speaker used the Pythagorean method to reconstruct this musical scale, by using a paper strip and fractions. Christa Amezcua also performed demonstrations with her violin and described how she uses music, astronomy, clothing manufacture, among other topics, to motivate the study of mathematics in her classroom.





14

11:00 AM 3:00 PM



FUNDAPROMAT Stand at the March for Science

On Sunday, April 14th, 2024 we were invited by Ciencia en Panama to have a stand from 11 am until 3 pm at the March for Science with fun math activities. This free in-person event took place at the Biomuseum, Panama City.









18

5:00 PM -6:00 PM



Webinar on Decorating a Kitchen with Mathematics

The Webinar on Decorating a Kitchen with Mathematics took place on Thursday, April 18th, 2024 from 5 pm until 6 pm, with Sebastian Barbieri, Professor in the Department of Mathematics and Computer Science at the University of Santiago of Chile, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker defined Wang tiles and did various exercises in which he asked the audience if we could tile an arbitrarily big kitchen or not given certain tiles. Sebastian Barbieri then introduced the concept of an algorithm, described the Wang question and explained how all this is related to the Turing machine. The speaker also presented the famous Kari tiling, the Robinson tiling and the Jeandel-Rao tiling.





20

11:00 AM -12:00 PM



Pyraminx Workshop at the National Library

On Saturday, April 20th, 2024 we ran a pyraminx workshop aimed at 10 year olds and above at the Youth Room, Fourth Floor, Ernesto J. Castillero R. National Library, located at the Omar Recreational Park, Panama City.











APRIL - MAY 2024

20

2:00 PM -5:00 PM



FUNDAPROMAT Stand at the Family Fair of The Oxford School in Paseo del Norte

On Saturday, April 20th, 2024 we were invited by the Jaguar Educational Fund to have a stand from 2 pm until 5 pm at the Family Fair of The Oxford School in Paseo del Norte with fun math activities.



4

10:00 AM -11:30 AM



Math Jamboree #104

The Math Jamboree #104 took place on Saturday, May 4th, 2024 from 10 am until 11:30 am. A Jamboree is a joyful and loud celebration or party. The Math Jamboree is an opportunity for the entire family to enjoy exploring the beauty and richness of mathematics by sharing their ideas on the recreational activity that we present during the virtual event.

In this Math Jamboree #104, participants were separated into groups depending on whether they are kids or adults and explored the interactive activity called «No Triangles» in an environment of collaboration and a lot of fun. This virtual event was free and open to the general public. We thank Jeanette Shakalli and Rafa Oliver for designing this activity for FUNDAPROMAT.



11:00 AM -12:00 PM



Magic, Knots and Mathematics in Los Santos

On Thursday, May 9th, 2024 the keynote speech "Magic, Knots and Mathematics" took place from 11 am until 12 pm at the Conference Room I, Regional Center of Azuero, Technological University of Panama (UTP). This free in-person event for the entire family was given by our international speaker Allison Henrich from the United States, as part of the celebration of the International Day for Women in Mathematics.









10

11:00 AM -12:00 PM



Magic, Knots and Mathematics in Panama

On Friday, May 10th, 2024 the keynote speech "Magic, Knots and Mathematics" took place from 11 am until 12 pm at the Miraflores Room of the Marriott Panama Hotel in Albrook Mall, Panama City. This free in-person event for the entire family was given by our international speaker Allison Henrich from the United States, as part of the celebration of the International Day for Women in Mathematics.











MAY 2024

11

12:00 PM -2:00 PM



Meet & Greet Allison Henrich

On Saturday, May 11th, 2024 the Meet & Greet Allison Henrich took place, which was a fundraising lunch to gather donations to cover the FUNDAPROMAT projects, in which participants had the opportunity to share with our international guest while enjoying an exquisite lunch at the Ciao Ragazzi restaurant in Clayton, Panama City.





13

11:00 AM -12:00 PM



Magic, Knots and Mathematics in Cocle

On Monday, May 13th, 2024 the keynote speech "Magic, Knots and Mathematics" took place from 11 am until 12 pm at the John Y. Keffer Auditorium of the Academia Forum Foundation in El Caimito, Penonome. This free in-person event for the entire family was given by our international speaker Allison Henrich from the United States, as part of the celebration of the International Day for Women in Mathematics.









16 5:00 PM -

6:00 PM



Webinar on Why is democracy bad but everything else is worse?

The Webinar on Why is democracy bad but everything else is worse? took place on Thursday, May 16th, 2024 from 5 pm until 6 pm, with Ruben Martinez-Avendaño, Professor in the Academic Department of Mathematics of the Autonomous Technological Institute of Mexico, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker explained with examples different voting methods: majority, with agenda, the Borda count, Hare's method and the dictator. Ruben Martinez-Avendaño then presented Kenneth Arrow's Theorem of 1950, who won the Nobel Prize in Economics in 1972. The speaker also mentioned that Saari in 2000 showed that the Borda count is the "least worst" of the voting methods. This virtual event was co-organized with the Mexican Mathematical Society (SMM).



18

11:00 AM -12:00 PM



Kirigami Workshop at the Mola Museum

On Saturday, May 18th, 2024 we were invited by the Alberto Motta Foundation to run a kirigami workshop aimed at 12 year olds and above at the Mola Museum in Casco Antiguo, Panama City.









FUNDAPROMAT

MAY 2024

18

4:00 PM -8:00 PM





FUNDAPROMAT Stand at the Celebration of the International Day of Museums

On Saturday, May 18th, 2024 we were invited by the Explora Sciences and Art Center to have a stand from 4 pm until 8 pm at the Celebration of the International Day of Museums with fun math activities. This in-person event for the entire family took place at the Explora Sciences and Art Center in Condado del Rey, Panama City.









21

7:00 PM -9:00 PM



MathsJam in Panama #15

On Tuesday, May 21st, 2024 from 7 pm until 9 pm the MathsJam in Panama took place, in which math enthusiasts who are 18 years old and above enjoyed exploring board games and interesting math puzzles in a pleasant environment where they had the opportunity to interact with other like-minded people. This in-person event, which is only for adults, took place in the bar La Rana Dorada of Condado del Rey, Panama City.



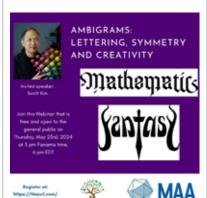






23

5:00 PM -6:00 PM



Thirty-Sixth Math Webinar in English

The thirty-sixth Math Webinar in English took place on Thursday, May 23rd, 2024 from 5 pm until 6 pm with puzzle designer, ambigram lettering artist and recreational mathematician who works as a startup coach and educational game designer with his company gamethinking.io, as our invited speaker. This virtual event was free and open to the general public.

In this thirty-sixth Math Webinar in English, Scott Kim presented on "Ambigrams: Lettering, Symmetry and Creativity". The speaker described that ambigrams are words written so they read in more than one way, usually right side up and upside down, or with some other mathematical symmetry, like mirror symmetry. Scott Kim mentioned that ambigrams are equal parts mathematics and art and showed multiple examples of ambigrams that he has created. The speaker also explained how you can create an ambigram using the names of some participants and taught us the basics of symmetry and lettering design. This virtual event was co-organized by the Mathematical Association of America (MAA).







Math Carnival in Panama City

On Sunday, May 26th, 2024 from 2 pm until 5 pm we ran a Math Carnival in Panama City full of fun math activities for all ages. This free in-person event for the entire family highlighted the Panamanian female mathematicians Yandra Gonzalez, Janeth Martinez and Esthefanie Taylor and took place at the Central Plaza of the Super Center El Dorado, Panama City.

26 2:00 PM -

5:00 PM











MAY - JUNE 2024

29

5:00 PM -6:00 PM



Webinar on Tuberculosis and Mathematics

The Webinar on Tuberculosis and Mathematics took place on Wednesday, May 29th, 2024 from 5 pm until 6 pm, with Natalia Mantilla, Professor and Researcher at the National Autonomous University of Mexico (UNAM), as our invited speaker. This virtual event was free and open to the general public.

The invited speaker explained that tuberculosis is a contagious disease that affects approximately one out of four people. Natalia Mantilla mentioned that tuberculosis is caused by a bacteria that generally attacks the lungs, but can also attack other parts of the body, and that this bacteria is transmitted from one person to another through the air. The speaker also clarified that not all the people infected by the bacteria of tuberculosis get sick, hence there are two conditions related to tuberculosis: the latent tuberculosis infection and the tuberculosis disease. Natalia Mantilla also described the mathematical models that are used to study this disease. This virtual event was co-organized with the Mexican Mathematical Society (SMM).



Math Jamboree #105

The Math Jamboree #105 took place on Saturday, June 1st, 2024 from 10 am until 11:30 am. A Jamboree is a joyful and loud celebration or party. The Math Jamboree is an opportunity for the entire family to enjoy exploring the beauty and richness of mathematics by sharing their ideas on the recreational activity that we present during the virtual event.

In this Math Jamboree #105, participants were separated into groups depending on whether they are kids or adults and explored the interactive activity called «<u>Cocina Caótica</u>» in an environment of collaboration and a lot of fun. This virtual event was free and open to the general public. We thank Romina Busain for designing this activity for FUNDAPROMAT.



10:00 AM -11:30 AM



Webinar on Mathematical Creativity

The Webinar on Mathematical Creativity took place on Thursday, June 6th, 2024 from 5 pm until 6 pm, with Nicolas Libedinsky, Professor of Mathematics at the University of Chile, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker described several entertaining mathematical exercises that help us enter a creative state, for example: how are they alike and reinterpret stories. Nicolas Libedinsky emphasized that the power of humor is like fuel for creativity and recommended placing objects that remind us to be creative. The speaker also mentioned that in order to be creative, he suggests having a beginner attitude, believing that our ideas are brilliant, trusting our own intuition, and training in improvisation.







5:00 PM -6:00 PM



12

5:00 PM -6:00 PM



Webinar on Games of Hippos, Flamingos and Octopuses

The Webinar on Games of Hippos, Flamingos and Octopuses took place on Wednesday, June 12th, 2024 from 5 pm until 6 pm, with Adrian Gonzalez Casanova, Professor of Mathematics at the Autonomous National University of Mexico (UNAM) and the University of California, Berkeley, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker shared the Elephant Game, the Flamingo and Hippo Game (also known as Submarine) and the Shannon Game, which involves octopuses that want to hold hands. Adrian Gonzalez Casanova explained the winning strategies of these games and mentioned that his presentation is based on the book "Game Theory, Alive!" This virtual event was co-organized with the Mexican Mathematical Society (SMM).



JUNE 2024



stituto de Moternáticas de la 5:00 PM 6:00 PM Fecha: Lueves 13 de lumio de 2021

Forty-Fifth Virtual Encounter with Outstanding Mathematicians

The forty-fifth Virtual Encounter with Outstanding Mathematicians took place on Thursday, June 13th, 2024 from 5 pm until 6 pm. Amalia Pizarro, Professor at the Mathematics Institute of the University of Valparaiso, Chile, was our invited speaker. This virtual event was free and open to the general public.

On this forty-fifth Encounter, Amalia Pizarro shared anecdotes of her personal life and her professional journey as a female mathematician. The speaker also presented on "Algorithms, Secrets and Prime Numbers." In this virtual event, Amalia Pizarro defined an algorithm as a finite sequence of logical and ordered steps with which we can solve a problem and mentioned that the first algorithm in history was written by Ada Lovelace. The speaker also explained what cryptography is and what cryptoanalysis means and shared the difference between cryptography of public key and cryptography of private key. Amalia Pizarro then described how all of this is related to prime numbers.



15

2:00 PM -3:00 PM



ENCUENTRO VIRTUAL CON

MATEMÁTICOS SOBRESALIENTES

Hore: 5:00 a.m inscribete en el link

Origami Workshop at the Museum of Liberty

On Saturday, June 15th, 2024 we were invited to run an origami workshop aimed at 8 year olds and above at the Museum of Liberty, Panama City.



18

7:00 PM -9:00 PM



MathsJam in Panama #16

On Tuesday, June 18th, 2024 from 7 pm until 9 pm the MathsJam in Panama took place, in which math enthusiasts who are 18 years old and above enjoyed exploring board games and interesting math puzzles in a pleasant environment where they had the opportunity to interact with other like-minded people. This in-person event, which is only for adults, took place in the bar La Rana Dorada of Condado del Rey, Panama City.

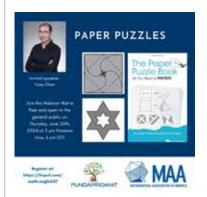








5:00 PM -6:00 PM



Thirty-Seventh Math Webinar in English

The thirty-seventh Math Webinar in English took place on Thursday, June 20th, 2024 from 5 pm until 6 pm with Yossi Elran, Recreational Mathematician at the Davidson Institute of Science Education, the educational arm of the Weizmann Institute of Science in Rehovot, Israel, as our invited speaker. This virtual event was free and open to the general public.

In this thirty-seventh Math Webinar in English, Yossi Elran presented on "Paper Puzzles". The speaker described the Fujimoto approximation and mentioned the origami works of Krystyna Burczyk and Robert Lang. Yossi Elran then showed how to divide a square into three equal parts, how to convert a rectangle into a square, how to transform a square into an equilateral triangle, how to convert a strip of paper into a pentagon, how to transform a strip of paper into a Mobius band, how to create a cube using a strip of paper, how to make flexagons, among other mathematical challenges. This virtual event was co-organized by the Mathematical Association of America (MAA).





JUNE 2024

22

10:00 AM -11:00 AM



Virtual Origami Class #109

The Virtual Origami Class #109 took place on Saturday, June 22nd, 2024 from 10 am until 11 am, with the origami artist David Medina as our invited speaker. This virtual event was free and open to the general public.

For this class, participants needed three $15 \text{ cm} \times 15 \text{ cm}$ paper squares, preferrably of different colors. David Medina then taught how to fold a Spinner, which is an origami model created by Makoto Yamaguchi. This origami design is appropriate for 8-year-olds and above.







26

11:00 AM -12:00 PM



Mati and her Math Adventures in Chiriqui

On Wednesday, June 26th, 2024 the keynote speech "Mati and her Math Adventures" took place from 11 am until 12 pm at the Elsa Estela Real Auditorium of the Autonomous University of Chiriqui (UNACHI). This free in-person event for the entire family was given by our international speaker Clara Grima from Spain.









27

11:00 AM -12:00 PM



Mati and her Math Adventures in Herrera

On Thursday, June 27th, 2024 the keynote speech "Mati and her Math Adventures" took place from 11 am until 12 pm at the Carmelo Spadafora Auditorium of the University of Work and the Elderly (UTTE) at Azuero in Chitre. This free in-person event for the entire family was given by our international speaker Clara Grima from Spain.









28

11:00 AM -12:00 PM



Mati and her Math Adventures in Panama

On Friday, June 28th, 2024 the keynote speech "Mati and her Math Adventures" took place from 11 am until 12 pm at the Auditorium of the Ascanio Arosemena Training Center, Panama City. This free in-person event for the entire family was given by our international speaker Clara Grima from Spain.









JUNE - JULY 2024

12:00 PM 2:00 PM



Meet & Greet Clara Grima

On Saturday, June 29th, 2024 the Meet & Greet Clara Grima took place, which was a fundraising lunch to gather donations to cover the FUNDAPROMAT projects, in which participants had the opportunity to share with our international guest while enjoying an exquisite lunch at the Ciao Ragazzi restaurant in Clayton, Panama City.











Math Jamboree #106

The Math Jamboree #106 took place on Saturday, July 6th, 2024 from 10 am until 11:30 am. A Jamboree is a joyful and loud celebration or party. The Math Jamboree is an opportunity for the entire family to enjoy exploring the beauty and richness of mathematics by sharing their ideas on the recreational activity that we present during the virtual event.

In this Math Jamboree #106, participants were separated into groups depending on whether they are kids or adults and explored the interactive activity called «Dragons» in an environment of collaboration and a lot of fun. This virtual event was free and open to the general public. We thank Jeanette Shakalli, Rafa Oliver and Tiago Hirth for designing this activity for FUNDAPROMAT.



10:00 AM -11:30 AM

16



Visit to the Casita de Mausi Foundation

On Tuesday, July 16th, 2024 we ran two fun math activities for the Casita de Mausi Foundation: "Paint Drop Tessellations" and "Building". This Foundation offers temporary lodging in Panama City for cancer patients from the provinces.









4:00 PM 5:00 PM



Webinar on Math in Netflix, Amazon, Spotify and Other Social Media

The Webinar on Math in Netflix, Amazon, Spotify and Other Social Media took place on Wednesday, July 17th, 2024 from 4 pm until 5 pm, with Alicia Prieto Langarica, Professor in the Department of Mathematics and Statistics at Youngstown State University in Ohio, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker explained in general how the mathematical algorithms that companies like Netflix, Spotify and Amazon use to make recommendations to their users to keep them connected work. Alicia Prieto Langarica then emphasized the effects on our mental health of being constantly using social media and the importance of human interaction. The speaker also described how technology can be used for good by sharing a concrete example in medicine.









JULY 2024

18

11:00 AM



Origami Workshop for the Embassy of Spain in Panama

On Thursday, July 18th, 2024 we were invited by the Embassy of Spain in Panama to run an origami workshop for a group of students and teachers of the Simon Bolivar Bilingual School at the Cultural Center of Spain in Casco Antiguo, Panama City.









18

5:00 PM -6:00 PM



Thirty-Eighth Math Webinar in English

The thirty-eighth Math Webinar in English took place on Thursday, July 18th, 2024 from 5 pm until 6 pm with Miranda Abbott, Founder of Dance Equations, as our invited speaker. This virtual event was free and open to the general public.

In this thirty-eighth Math Webinar in English, Miranda Abbott presented on "Dancing Digits". The speaker explored rapid additions and subtractions using her body as a calculator. Miranda Abbott designed this activity to enhance the mental math skills of her students engagingly and dynamically and to stimulate their minds in new ways. This virtual event was co-organized by the Mathematical Association of America (MAA).

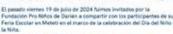






19

12:30 PM -2:00 PM Stand de FUNDAPROMAT en la Feria Escolar de la Fundación Pro Niños de Darién





FUNDAPROMAT Stand at the School Fair of the Pro Children of Darien Foundation

On Friday, July 19th, 2024 we were invited to have a stand from 12:30 pm until 2 pm at the School Fair of the Pro Children of Darien Foundation in Meteti with fun math activities, as part of the celebration of Children's Day.









20

10:00 AM -12:00 PM



Training Session for Volunteers of the Panama Canal Authority

On Saturday, July 20th, 2024 we were invited to run an in-person training session on recreational mathematics to a group of volunteers of the Panama Canal Authority at the Ascanio Arosemena Training Center, Panama City.









JULY 2024



20 2:00 PM -4:00 PM



Math Party for the Embassy of Spain in Panama

On Saturday, July 20th, 2024 we were invited by the Embassy of Spain in Panama to run a Math Party at the Cultural Center of Spain in Casco Antiguo, Panama City. This free in-person event for the entire family included fun math activities accessible for all ages.









23

7:00 PM - 9:00 PM



MathsJam in Panama #17

On Tuesday, July 23rd, 2024 from 7 pm until 9 pm the MathsJam in Panama took place, in which math enthusiasts who are 18 years old and above enjoyed exploring board games and interesting math puzzles in a pleasant environment where they had the opportunity to interact with other like-minded people. This in-person event, which is only for adults, took place in the bar La Rana Dorada of Condado del Rey, Panama City.









25

8:00 AM -5:00 PM



FUNDAPROMAT Stand at the Book and Literature Youth Festival in Chiriqui

On Thursday, July 25th, 2024 we were invited to have a stand from 8 am until 5 pm at the Book and Literature Youth Festival with fun math activities. This free in-person event for the entire family took place at the Boquete Library, Province of Chiriqui.









27

3:00 PM -4:00 PM



Flexagon Party at the Mola Museum

On Saturday, July 27th, 2024 we were invited by the Alberto Motta Foundation to run a flexagon party aimed at 12 year olds and above at the Mola Museum in Casco Antiguo, Panama City.











JULY - AUGUST 2024

28

10:00 AM -11:00 AM



Origami Workshop at the Nueva Luz No. 2 Community Center in Burunga

On Sunday, July 28th, 2024 we were invited by the TECHO Foundation to run an origami workshop at the Nueva Luz No. 2 Community Center in Burunga. This Foundation seeks to overcome the poverty situation that thousands of people in precarious settlements live, through the joint action of the inhabitants and volunteers.









3

8:30 PM -3:30 PM



FUNDAPROMAT Stand at the Annual Congress of the Valorate Foundation

On Saturday, August 3rd, 2024 we were invited to have a stand from 8:30 am until 3:30 pm at the Annual Congress of the Valorate Foundation with fun math activities at the Marriott Panama Hotel in Albrook Mall.

FUNDAPROMAT Stand at the Second Student Networking Encounter

On Thursday, August 8th, 2024 we were invited by the National Secretariat of Science, Technology

and Innovation (SENACYT) to have a stand from 9 am until 2 pm at the Second Student Networking Encounter with fun math activities. This in-person event took place at the Convention Center of



the City of Knowledge, Panama City.







8

9:00 AM -2:00 PM













Math For All at the International Book Fair

On Tuesday, August 13th, 2024 we were invited by the Panamanian Book Chamber (CAPALI) to give a keynote lecture on "Math For All" from 10 am until 11 am at the Bejuco Chocoe Room, First Floor, Atlapa Convention Center, Panama City. This in-person event aimed at 14 to 16 year-old students was given by our Executive Director, Dr. Jeanette Shakalli.











FUNDAPROMAT

AUGUST 2024

14 10:00 AM -

11:00 AM



Math For All at the International Book Fair

On Wednesday, August 14th, 2024 we were invited by the Panamanian Book Chamber (CAPALI) to give a keynote lecture on "Math For All" from 10 am until 11 am at the Bejuco Chocoe Room, First Floor, Atlapa Convention Center, Panama City. This in-person event aimed at 14 to 16 year-old students was given by our Executive Director, Dr. Jeanette Shakalli.



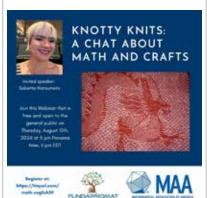






15

5:00 PM -6:00 PM



Thirty-Ninth Math Webinar in English

The thirty-ninth Math Webinar in English took place on Thursday, August 15th, 2024 from 5 pm until 6 pm with Sabetta Matsumoto, Associate Professor in the School of Physics at Georgia Institute of Technology, as our invited speaker. This virtual event was free and open to the general public.

In this thirty-ninth Math Webinar in English, Sabetta Matsumoto presented on "Knotty Knits: A Chat about Math and Crafts". The speaker connected creative crafts with math research. Sabetta Matsumoto presented on curvature using pattern design, symmetries using quilt squares and flags, hyperbolic space using crochet, and knot theory and coding using knits. This virtual event was co-organized by the Mathematical Association of America (MAA).









16 10:00 AM -11:00 AM



Math For All at the International Book Fair

On Friday, August 16th, 2024 we were invited by the Panamanian Book Chamber (CAPALI) to give a keynote lecture on "Math For All" from 10 am until 11 am at the Bejuco Chocoe Room, First Floor, Atlapa Convention Center, Panama City. This in-person event aimed at 14 to 16 year-old students was given by our Executive Director, Dr. Jeanette Shakalli.









17

9:00 AM -7:00 PM



FUNDAPROMAT Stand at the International Book Fair

On Saturday, August 17th, 2024 we were invited by the Panamanian Book Chamber (CAPALI) to have a stand with two tables with fun math activities from 9 am until 7 pm at the International Book Fair. This in-person event took place at the Atlapa Convention Center, Panama City.











AUGUST 2024

18 9:00 AM -

7:00 PM



FUNDAPROMAT Stand at the International Book Fair

On Sunday, August 18th, 2024 we were invited by the Panamanian Book Chamber (CAPALI) to have a stand with two tables with fun math activities from 9 am until 7 pm at the International Book Fair. This in-person event took place at the Atlapa Convention Center, Panama City.









21

10:00 AM -12:00 PM



Math Carnival in Darien

On Wednesday, August 21st, 2024 from 10 am until 12 pm we ran our first Math Carnival in Darien full of fun math activities for all ages. This free in-person event for the entire family highlighted the Panamanian female mathematicians Jeanine Quintero, Doris Navas and Delia Vargas and took place at the Bellagio Restaurant in Meteti, Province of Darien.









21

6:00 PM -8:00 PM



FUNDAPROMAT Stand at the Expo Design 11

On Wednesday, August 21st, 2024 we were invited by the Ganexa University of Art to have a stand from 6 pm until 8 pm at the Expo Design 11 with fun math activities. This in-person event took place at the Galleria Room of the Ganexa University of Art, Panama City.









24

10:00 AM -12:00 PM



Math Party for the Panama Canal Authority

On Saturday, August 24th, 2024 we were invited to run a Math Party for the children of the employees of the Panama Canal Authority at the Managerial Wing of the Ascanio Arosemena Training Center, Panama City.











AUGUST - SEPTEMBER 2024

28

1:00 PM -2:30 PM



FUNDAPROMAT Stand at the International Math Congress 2024

On Wednesday, August 28th, 2024 we were invited by the University of Panama to have a stand from 1 pm until 2:30 pm at the International Math Congress 2024 with fun math activities. This in-person event took place at the Harmodio Arias Madrid Campus, Panama City.









29

5:00 PM -6:00 PM



Webinar on The Mystery of Numbers

The Webinar on The Mystery of Numbers took place on Thursday, August 29th, 2024 from 5 pm until 6 pm, with Nicolas Piña, Professor at the Central University of Chile, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker explained why 6174 is Krapekar's constant for four digits and why 495 is considered Kaprekar's constant for three digits. Nicolas Piña then described why 73 is Sheldon Cooper's favorite number from the popular TV show "Big Bang Theory". The speaker also defined which are the happy numbers and which are the unhappy numbers and highlighted an open problem in mathematics: we still do not know if there exist infinitely many happy prime numbers.









9:00 AM -12:00 PM



Math Carnival in Chiriqui

On Tuesday, September 3rd, 2024 from 9 am until 12 pm we ran a Math Carnival in the Province of Chiriqui full of fun math activities for all ages. This free in-person event for the entire family highlighted the Panamanian female mathematicians Maryan Williams, Karen Cedeño and Rita Vargas and took place at the Boquete Library, Province of Chiriqui.









7 10:00 AM -11:30 AM



Math Jamboree #107

The Math Jamboree #107 took place on Saturday, September 7th, 2024 from 10 am until 11:30 am. A Jamboree is a joyful and loud celebration or party. The Math Jamboree is an opportunity for the entire family to enjoy exploring the beauty and richness of mathematics by sharing their ideas on the recreational activity that we present during the virtual event.

In this Math Jamboree #107, participants were separated into groups depending on whether they are kids or adults and explored the interactive activity called «<u>Floral Zeros</u>» in an environment of collaboration and a lot of fun. This virtual event was free and open to the general public. We thank Jeanette Shakalli and Julieta Parravicini for designing this activity for FUNDAPROMAT.







SEPTEMBER 2024

10 11:00 AM -12:00 PM



Kirigami and Math in Bocas del Toro

On Tuesday, September 10th, 2024 the keynote speech "Kirigami and Math" took place from 11 am until 12 pm at the Auditorium of the Regional Center of Bocas del Toro, Technological University of Panama (UTP). This free in-person event for the entire family was given by our international speaker Miriam Baez from Mexico.









12 11:00 AM

12:00 PM



Kirigami and Math in Darien

On Thursday, September 12th, 2024 the keynote speech "Kirigami and Math" took place from 11 am until 12 pm at the Bellagio Restaurant in Meteti, Province of Darien. This free in-person event for the entire family was given by our international speaker Miriam Baez from Mexico.









13 11:00 AM -

12:00 PM



Kirigami and Math in Panama

On Friday, September 13th, 2024 the keynote speech "Kirigami and Math" took place from 11 am until 12 pm at the Colon Room 3, Second Floor, Marriott Panama Hotel in Albrook Mall, Panama City. This free in-person event for the entire family was given by our international speaker Miriam Baez from Mexico.









14

12:00 PM -2:00 PM



Meet & Greet Miriam Báez

On Saturday, September 14th, 2024 the Meet & Greet Miriam Baez took place, which was a fundraising lunch to gather donations to cover the FUNDAPROMAT projects, in which participants had the opportunity to share with our international guest while enjoying an exquisite lunch at the Ciao Ragazzi restaurant in Clayton, Panama City.







SEPTEMBER 2024

15

1:00 PM -5:00 PM



FUNDAPROMAT Stand at the Omar Recreational Park

On Sunday, September 15th, 2024 we were invited to have a stand from 1 pm until 5 pm at the activity "I learn and have fun on vacation" of the First Lady's Office with fun math activities. This free in-person event for the entire family took place at the Santiago Room in the Omar Recreational Park, Panama City.









17

7:00 PM -9:00 PM



MathsJam in Panama #18

On Tuesday, September 17th, 2024 from 7 pm until 9 pm the MathsJam in Panama took place, in which math enthusiasts who are 18 years old and above enjoyed exploring board games and interesting math puzzles in a pleasant environment where they had the opportunity to interact with other like-minded people. This in-person event, which is only for adults, took place in the bar La Rana Dorada of Condado del Rey, Panama City.



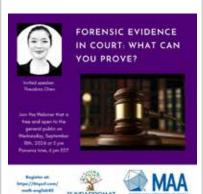






18

5:00 PM -6:00 PM



Fortieth Math Webinar in English

The fortieth Math Webinar in English took place on Wednesday, September 18th, 2024 from 5 pm until 6 pm with Theodora Chen, Digital Forensic Officer at the British Transport Police, as our invited speaker. This virtual event was free and open to the general public.

In this fortieth Math Webinar in English, Theodora Chen presented on "Forensic Evidence in Court: What Can You Prove?" The speaker explained the different types of forensic evidence and in particular, described fingerprint evidence, DNA evidence and digital forensic evidence. Theodora Chen mentioned various concrete examples of the issue between explanation, particularly if it involves probability and statistics, and interpretation when evidence is presented in court. The speaker also introduced the different types of bias, such as unitentional stereotype bias, confirmation bias and contextual bias. This virtual event was co-organized by the Mathematical Association of America (MAA).









21 11:00 AM -

12:00 PM



Workshop on Drawing Art in 3D at the City of Knowledge

On Saturday, September 21st, 2024 we ran a workshop on drawing art in 3D aimed at 12 year olds and above at the Building 181 of the City of Knowledge, Panama City. This in-person workshop was given by our Fulbright scholar Annalisa Crannell.











SEPTEMBER - OCTOBER 2024

27

1:00 PM -3:00 PM



FUNDAPROMAT Stand at the Youth Hall of the Ibero-American Night of Researchers

On Friday, September 27th, 2024 we were invited by the Organization of Ibero-American States (OEI) - Panama Headquarters to have a stand from 1 pm until 3 pm at the Youth Hall of the Ibero-American Night of Researchers with fun math activities. This in-person event took place at House 108 of the City of Knowledge, Panama City.









28

3:00 PM -4:00 PM



Cutting Carnival at the Mola Museum

On Saturday, September 28th, 2024 we were invited by the Alberto Motta Foundation to run a cutting carnival aimed at 12 year olds and above at the Mola Museum in Casco Antiguo, Panama City.









ARTISTIC MATHEMATICS: RUTH AND BEAUTY 5:00 PM -

6:00 PM





Forty-First Math Webinar in English

The forty-first Math Webinar in English took place on Wednesday, October 2nd, 2024 from 5 pm until 6 pm with Henry Segerman, Associate Professor of Mathematics at Oklahoma State University, as our invited speaker. This virtual event was free and open to the general public.

In this forty-first Math Webinar in English, Henry Segerman presented on "Artistic Mathematics: Truth and Beauty." The speaker presented on his work in mathematical visualization, that involves the creation of images, models and experiences of mathematical concepts that are accurate, effective and beautiful. Henry Segerman explained what makes a visualization compelling and showed many examples of 3D printing, virtual reality and spherical video. The speaker also mentioned his experiences in teaching a project-based class on 3D printing for mathematics students and recommended the participants visit the following websites: https://math.okstate.edu/people/segerman, https://3-dimensional.space y https:// www.youtube.com/watch?v=g3X0d5NUjjA. This virtual event was co-organized by the Mathematical Association of America (MAA).









Math Jamboree #108

The Math Jamboree #108 took place on Saturday, October 5th, 2024 from 10 am until 11:30 am. A Jamboree is a joyful and loud celebration or party. The Math Jamboree is an opportunity for the entire family to enjoy exploring the beauty and richness of mathematics by sharing their ideas on the recreational activity that we present during the virtual event.

In this Math Jamboree #108, participants were separated into groups depending on whether they are kids or adults and explored the interactive activity called «Colored Little Balls» in an environment of collaboration and a lot of fun. This virtual event was free and open to the general public. We thank Marleny Vargas for designing this activity for FUNDAPROMAT.





10:00 AM -11:30 AM

FUNDAPROMAT

OCTOBER 2024

6

1:00 PM 4:00 PM



FUNDAPROMAT Stand at the Panama Chess Festival

On Sunday, October 6th, 2024 we were invited by Chess Logistic Panama to have a stand from 1 pm until 4 pm at the Panama Chess Festival with fun math activities. This in-person event took place at Atrio Costa del Este, Panama City.









8 2:00 PM -

4:00 PM



Origami Workshop for the Development Bank of Latin America and the Caribbean (CAF)

On Tuesday, October 8th, 2024 we were invited by the Development Bank of Latin America and the Caribbean (CAF) to run two origami workshops for two groups of students of the Adelaida Herrera School in the Province of Colon, as part of their volunteer initiative known as "One Backpack of Opportunities".









9 5:00 PM -

6:00 PM



Forty-Sixth Virtual Encounter with Outstanding Mathematicians

The forty-sixth Virtual Encounter with Outstanding Mathematicians took place on Wednesday, October 9th, 2024 from 5 pm until 6 pm. Mariana Carnalla, Math Communicator at the Math Research Center (CIMAT) in Mexico, was our invited speaker. This virtual event was free and open to the general public.

On this forty-sixth Encounter, Mariana Carnalla shared anecdotes of her personal life and her professional journey as a female mathematician. The speaker also presented on "Between the Cognitive and the Affective." In this virtual event, Mariana Carnalla described an implementation model designed by the Creative Math Teaching Network that seeks to promote a vision of mathematics as an activity that stimulates creative, conceptual and emotional development. The speaker highlighted that the path is more important than the result and mentioned several examples of positive and inclusive comments that can be used by activity facilitators to attract more people towards mathematics. Mariana Carnalla also invited the participants to solve a math challenge called "The Bored Jailer".









10 9:00 AM -

12:00 PM



FUNDAPROMAT Stand at the Scientific Fair of Youth Ingenuity 2024

On Thursday, October 10th, 2024 we were invited by the National Secretariat of Science, Technology and Innovation (SENACYT) to have a stand from 9 am until 12 pm at the Scientific Fair of Youth Ingenuity 2024 with fun math activities. This in-person event took place at the Marriott Panama Hotel in Albrook Mall.











OCTOBER 2024

10

5:00 PM -6:00 PM



Webinar on Why Communicate Science?

The Webinar on Why Communicate Science? took place on Thursday, October 10th, 2024 from 5 pm until 6 pm, with Nelida Pohl, Director of Communications at the Ecology and Biodiversity Institute of Chile, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker explained why science communication is important and why involving science researchers in it is necessary. Nelida Pohl mentioned that before communicating science, we have to reflect on why we are doing it and which communities are we trying to serve. The speaker also shared several examples of effective, responsible and sensible communication and described the basic principles of communicating with diverse audiences in a variety of formats.









13

11:00 AM -12:00 PM



Workshop on Optical Illusions in 3D at the City of Knowledge

On Sunday, October 13th, 2024 we ran a workshop on optical illusions in 3D aimed at 12 year olds and above at the Building 181 of the City of Knowledge, Panama City. This in-person workshop was given by our Fulbright scholar Annalisa Crannell.







15

11:00 AM -12:00 PM



Workshop on Optical Illusions in 3D for the University of Panama

On Tuesday, October 15th, 2024 we were invited to run a workshop on optical illusions in 3D aimed at students and teachers of the Math Department of the University of Panama. This in-person workshop was given by our Fulbright scholar Annalisa Crannell and took place at the Bernardo Lombardo Auditorium (A11) of the University of Panama.







17

5:00 PM -6:00 PM



Webinar on That story is missing a piece

The Webinar on That story is missing a piece took place on Thursday, October 17th, 2024 from 5 pm until 6 pm, with Martha Mosquera, Research Professor at the Education Department of the South Colombian University, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker shared about the division of fractions in real life contexts in a simple and accessible way to a general audience. Martha Mosquera described a geometric example starting from a tangram and a numerical example referring to the salaries of a company.







OCTOBER 2024

18 8:00 AM -

1:00 PM



FUNDAPROMAT Stand at the Sustainable Action Forum

On Friday, October 18th, 2024 we were invited by the Chamber of Multinational Business Sites (CASEM) to have a stand from 8 am until 1 pm at the Sustainable Action Forum with fun math activities. This in-person event took place at the Convention Center of PH Dream Plaza in Costa del Este









19

10:00 AM -1:00 PM



Math Carnival in Cocle

On Saturday, October 19th, 2024 from 10 am until 1 pm we ran our first Math Carnival in the Province of Cocle full of fun math activities for all ages. This free in-person event for the entire family highlighted the Panamanian female mathematicians Ossiris Alveo, Dalis Moran and Damaris Vergara and took place at the John Y. Keffer Auditorium of the Academia Forum Foundation in El Caimito, Penonome, Province of Cocle.









20

10:00 AM -11:30 PM



FUNDAPROMAT Stand at the WheeMinds National Competition 2024

On Sunday, October 20th, 2024 we were invited to have a stand from 10 am until 11:30 am at the WheeMinds National Competition 2024 with fun math activities. This in-person event took place at the Marriott Panama Hotel in Albrook Mall.









22

7:00 PM -9:00 PM



MathsJam in Panama #19

On Tuesday, October 22nd, 2024 from 7 pm until 9 pm the MathsJam in Panama took place, in which math enthusiasts who are 18 years old and above enjoyed exploring board games and interesting math puzzles in a pleasant environment where they had the opportunity to interact with other like-minded people. This in-person event, which is only for adults, took place in the bar La Rana Dorada of Condado del Rey, Panama City.











OCTOBER - NOVEMBER 2024

24

5:00 PM -6:00 PM



Webinar on Tessellations, Triangles and a Rebellious Algorithm

The Webinar on Tessellations, Triangles and a Rebellious Algorithm took place on Thursday, October 24th, 2024 from 5 pm until 6 pm, with Constanza Del Campo, Adjunct Professor at the Math Department of the Pontifical Catholic University of Chile and Organizer of the Math Club of the Department, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker started the virtual event by explaining what a tessellation is and showing several examples of tessellations in different cultures. Constanza Del Campo then described what periodic and aperiodic tessellations are and highlighted Penrose tilings. The speaker also mentioned that in 2023 a mathematical discovery took place of a new geometric shape called "The Hat" that tessellates the plane aperiodically.









26

10:00 AM 11:00 AM



Virtual Origami Class #110

The Virtual Origami Class #110 took place on Saturday, October 26th, 2024 from 10 am until 11 am, with the origami artist David Medina as our invited speaker. This virtual event was free and open to the general public.

For this class, participants needed one 15 cm x 15 cm paper square and one black marker. David Medina then taught how to fold a pumpkin, which is a traditional origami model. This origami design is appropriate for 8-year-olds and above.





31

11:00 AM -12:00 PM







Workshop on Optical Illusions in 3D for the School for International Training

On Thursday, October 31st, 2024 we were invited to run a workshop on optical illusions in 3D aimed at a group of United States students of the School for International Training (SIT Panama). This in-person workshop was given by our Fulbright scholar Annalisa Crannell and took place at the Building 224 of the City of Knowledge, Panama City.









10:00 AM -



Math Jamboree #109

The Math Jamboree #109 took place on Saturday, November 2nd, 2024 from 10 am until 11:30 am. A Jamboree is a joyful and loud celebration or party. The Math Jamboree is an opportunity for the entire family to enjoy exploring the beauty and richness of mathematics by sharing their ideas on the recreational activity that we present during the virtual event.

In this Math Jamboree #109, participants were separated into groups depending on whether they are kids or adults and explored the interactive activity called «Victoria and Bernardo 's Garden» in an environment of collaboration and a lot of fun. This virtual event was free and open to the general public. We thank Romina Busain and Julieta Parravicini for designing this activity for FUNDAPROMAT.





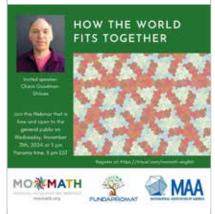




NOVEMBER 2024

13

5:00 PM - 6:00 PM



Math Webinar in English with MoMath

The Math Webinar in English with MoMath took place on Wednesday, November 13th, 2024 from 5 pm until 6 pm with Chaim Goodman-Strauss, Outreach Mathematician at MoMath in New York City, as our invited speaker. This virtual event was free and open to the general public.

In this Math Webinar in English, Chaim Goodman-Strauss presented on "How the World Fits Together." The speaker shared about the mathematical discovery that took place last year in which Dave Smith discovered a new geometric shape known as "The Hat" which tessellates the plane aperiodically. Chaim Goodman-Strauss described how he and mathematicians Craig Kaplan and Joseph Myers were involved with this great discovery. The speaker then presented on MoMath's Rosenthal Prize for Innovation and Inspiration in Math Teaching and also showed the winners of MoMath's Einstein Mad Hat Awards. This virtual event was co-organized by the Mathematical Association of America (MAA) and the National Museum of Mathematics (MoMath) in New York City.









14

5:00 PM - 6:00 PM



Webinar on Math Legends

The Webinar on Math Legends took place on Thursday, November 14th, 2024 from 5 pm until 6 pm, with Diana Bueno, Professor of Mathematics at the Pontifical Javeriana University Cali Section in Colombia, as our invited speaker. This virtual event was free and open to the general public.

The invited speaker shared three mathematical legends: Caesar cipher, Hanoi towers and Konigsberg bridges. Diana Bueno also explained what a graph is and what graphs are currently used for and connected recursion and recurrence relations with epidemiology, fractals and investments. The speaker then described how information theory is related to cryptography, steganography and error correcting codes.







15

12:00 PM -1:00 PM



Origami Workshop for the Pro Children's Dining Rooms Foundation

On Friday, November 15th, 2024 we were invited by the Faro Foundation to run an origami workshop for the kids of the Pro Children's Dining Rooms Foundation in Villa Cardenas. This Foundation seeks to offer opportunities of development to kids and adolescents in condition of poverty by giving support in comprehensive care, nutrition and education.









Virtual Origami Class #111

The Virtual Origami Class #111 took place on Saturday, November 16th, 2024 from 10 am until 11 am, with the origami artist David Medina as our invited speaker. This virtual event was free and open to the general public.

For this class, participants needed three 15 cm x 15 cm paper squares and scissors. David Medina then taught how to fold a Pajarita Puzzle, which is an origami model created by the speaker. This origami design is appropriate for 8-year-olds and above. This was FUNDAPROMAT's last Virtual Origami Class of 2024.





16 10:00 AM -11:00 AM





NOVEMBER 2024

2:00 PM 4:00 PM



FUNDAPROMAT Stand at the National Speech Competition 2024

On Sunday, November 17th, 2024 we were invited by the Mas Movil Foundation to have a stand from 2 pm until 4 pm at the National Speech Competition 2024 with fun math activities. This Competition took place at the Atlapa Convention Center, Panama City, and was organized by the company Mas Movil, the Savings Bank and the Ministry of Education (MEDUCA) of Panama.









8:00 PM -3:00 PM





FUNDAPROMAT Stand at the Innova Nation Summit 2024

On Tuesday, November 19th, 2024 we were invited by Innova Nation to have a stand from 8 am until 3 pm at the Innova Nation Summit 2024 with fun math activities. This in-person event took place at the Convention Center of the City of Knowledge. Innova Nation seeks to provide 8 to 18 year-old kids practical learning experiences that foster their creativity, critical thinking and problem-solving skills.









5:00 PM 6:00 PM

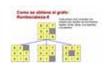


Webinar on Artificial Intelligence for Games

The Webinar on Artificial Intelligence for Games took place on Wednesday, November 20th, 2024 from 5 pm until 6 pm, with Saul Blanco, Professor of Mathematics at the University of Indiana, as our invited speaker. This virtual event was free and open to the general public.

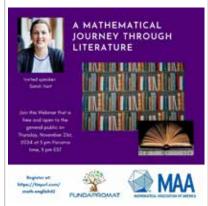
The invited speaker shared on artificial intelligence that has been applied to games for a long time, such as Chess, Go and Pacman. Saul Blanco then described a brief history of the use of artificial intelligence in games and explained several algorithms that are used like Minimax and the problem of coloring maps.







5:00 PM -6:00 PM

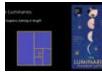


Forty-Second Math Webinar in English

The forty-second Math Webinar in English took place on Thursday, November 21st, 2024 from 5 pm until 6 pm with Sarah Hart, Professor Emerita of Mathematics at Birkbeck College, University of London, as our invited speaker. This virtual event was free and open to the general public.

In this forty-second Math Webinar in English, Sarah Hart presented on "A Mathematical Journey Through Literature." The speaker described mathematical ideas used in literature, mentioned several hidden mathematical structures in poetry and novels, and presented examples on metaphors and symbolism in children's fairytales and other literary works. Sarah Hart then showed that not only are mathematics and literature intrinsically linked, but also understanding these connections can enhance our enjoyment of both. This virtual event was co-organized by the Mathematical Association of America











NOVEMBER - DECEMBER 2024

23

10:00 AM -12:00 PM



Math Party with the Gabriel Lewis Galindo Foundation

On Saturday, November 23rd, 2024 we were invited by the Gabriel Lewis Galindo Foundation to run a Math Party at the Gabriel Lewis Galindo Bilingual Education Center in San Miguelito, Panama City. This free in-person event for the entire family included fun math activities accessible for all ages.









26

2:30 PM -3:30 PM



Origami Workshop for the New Generation Organization

On Tuesday, November 26th, 2024 we were invited by the Faro Foundation to run an origami workshop for the kids of the New Generation Organization at the Barraza Child Care Center in El Chorrillo, Panama City.









26

5:00 PM -6:00 PM



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Forty-Seventh Virtual Encounter with Outstanding Mathematicians

The forty-seventh Virtual Encounter with Outstanding Mathematicians took place on Tuesday, November 26th, 2024 from 5 pm until 6 pm. Astrid Acosta, Bachelor in Education and Math Tutor in West Panama, was our invited speaker. This virtual event was free and open to the general public.

On this forty-seventh Encounter, Astrid Acosta shared anecdotes of her personal life and her professional journey as a female mathematician. The speaker also presented on "Math in Action: Games and Puzzles to Think." In this virtual event, Astrid Acosta explored how to apply mathematical concepts in a fun way through games such as "Like Dogs and Cats" and "Secret Messages". The speaker encouraged the participants to develop mathematical and strategic skills through these puzzles, while enjoying themselves by playing.







Stand de FUNDAPROMAT en el Consulado de Colombia en Panamá

El pasado lunes 2 de diciembre de 2024 fulmos invitados por Colon Nos Uno a compartir con grandes y prequeños en el Consulado de Colombia en Panamá, ubicado en el Pili Posado del Rey en Paitita.





FUNDAPROMAT Stand at the Colombian Consulate in Panama

On Monday, December 2nd, 2024 we were invited by Colombia Unites Us to have a stand from 9 am until 11 am at the Colombian Consulate in Panama with fun math activities. This in-person event took place at the PH Posada del Rey in Paitilla, Panama City.









9:00 AM -11:00 AM



DECEMBER 2024

4

1:00 PM -2:00 PM



Origami Workshop for the Senderos Foundation

On Wednesday, December 4th, 2024 we were invited by the Faro Foundation to run an origami workshop for kids and teenagers of the Senderos Foundation at the Children's Dining Room in Curundu, Panama City.

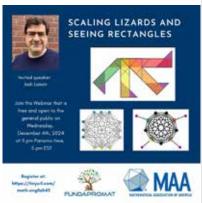






4

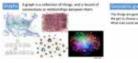
5:00 PM -6:00 PM



Forty-Third Math Webinar in English

The forty-third Math Webinar in English took place on Wednesday, December 4th, 2024 from 5 pm until 6 pm with Josh Laison, Professor of Mathematics at Willamette University in Oregon, United States, as our invited speaker. This virtual event was free and open to the general public.

In this forty-third Math Webinar in English, Josh Laison presented on "Scaling Lizards and Seeing Rectangles." The speaker started the virtual event by explaining what a graph is, what graphs are used for and what geometric graphs, intersection graphs and visibility graphs are. Josh Laison then presented three research projects that he worked on with his university students related to geometric graph theory based on puzzles. The speaker also described what a lizard intersection graph is, what a corner rectangle visibility graph is and what a minimal rectangle visibility graph is. This virtual event was co-organized by the Mathematical Association of America (MAA).







6

10:00 AM -2:00 PM



International Math Festival Celebrating our Fifth Anniversary

On Friday, December 6th, 2024 from 10 am until 2 pm our International Math Festival celebrating our Fifth Anniversary took place at the Veraguas Room, Second Floor, Marriott Panama Hotel in Albrook Mall, Panama City. This free in-person event for the entire family included the participation of the National Secretariat of Science, Technology and Innovation of Panama (SENACYT), the Smithsonian Tropical Research Institute (STRI), the Explora Sciences and Art Center, Ciencia en Panama/EducationUSA, the Panamanian Chess Federation, the Panamanian Scrabble Association, Orfeo's Productions, INDICASAT AIP, CENAMEP AIP, INFOPLAZAS AIP and COIBA AIP.











9:00 AM -12:30 PM



Mathemagic Workshops for the Embassy of Spain in Panama

On Saturday, December 7th, 2024 our volunteer Rafa Oliver from Spain gave two mathemagic workshops for kids of the San Felipe Community Council at the Cultural Center of Spain in Casco Antiguo, Panama City. These in-person workshops were sponsored by the Embassy of Spain in Panama.











DECEMBER 2024

10

4:00 PM -6:00 PM



FUNDAPROMAT Stand at the Christmas Workshop of the First Lady's Office

On Tuesday, December 10th, 2024 we were invited to have a stand from 4 pm until 6 pm at the Christmas Workshop of the First Lady's Office with fun math activities. This in-person event took place at the Santiago Room of the Omar Recreational Park, Panama City.









14

10:00 AM -11:30 AM



Math Jamboree #110

The Math Jamboree #110 took place on Saturday, December 14th, 2024 from 10 am until 11:30 am. A Jamboree is a joyful and loud celebration or party. The Math Jamboree is an opportunity for the entire family to enjoy exploring the beauty and richness of mathematics by sharing their ideas on the recreational activity that we present during the virtual event.

In this Math Jamboree #110, participants were separated into groups depending on whether they are kids or adults and explored the interactive activity called «Binary Sudoku» in an environment of collaboration and a lot of fun. This virtual event was free and open to the general public. We thank Julieta Parravicini for designing this activity for FUNDAPROMAT. This was our last Math Jamboree of 2024.





18

6:00 PM -8:00 PM



FUNDAPROMAT Stand at the Expo Design 12.0

On Wednesday, December 18th, 2024 we were invited by the Ganexa University of Art to have a stand from 6 pm until 8 pm at the Expo Design 12.0 with fun math activities. This in-person event took place at the Galleria Room of the Ganexa University of Art, Panama City.







