3RD ANNUAL

# PROJECT FIBONACCI® STEAM CONFERENCE

JULY 22-28, 2018 ROME, NY

project FIBONACCI® FOUNDATION, INC.

## DEDICATED TO CAPTAIN ALAN BEAN
1932-2018


Programs Printed Courtesy of The Gallery

# IN MEMORY OF CAPTAIN ALAN BEAN

The Project Fibonacci Foundation® mourns the passing of astronaut and artist Alan Bean. A former naval aviator, test pilot, engineer and NASA astronaut, he was the fourth person to walk on the Moon and the only artist to do so. Following his retirement from NASA, he turned his experiences in space into art, taking the moon dust from the service patches that were on his space suit and putting it into the moonscapes and space scenes that he brought to life through paint.

In 2016 Captain Bean spoke at the inaugural Project Fibonacci® STEAM Conference – about how he was uniquely positioned within the astronaut corps at the time to be able to look at that singular experience through the eyes of someone who had the mind of a scientist and the heart of an artist. He inspired the people of Rome and our first crop of STEAM Scholars to embrace both the cognitive and creative sides of their personalities, and allow inspiration from one to influence and guide the other.

Alan Bean was in many ways the poster child of all that we're trying to accomplish through the Project Fibonacci® initiative, being both a scholar and an artist. He was here at our beginning, and we owe him a great debt of gratitude. We'll hold him forever in our hearts.

## Full STEAM Ahead!

P (315) 334-1163 F (315) 334-1397 E info@projectfibonacci.org W projectfibonacci.org

# WELCOME

project FIBONACCI® FOUNDATION, INC.

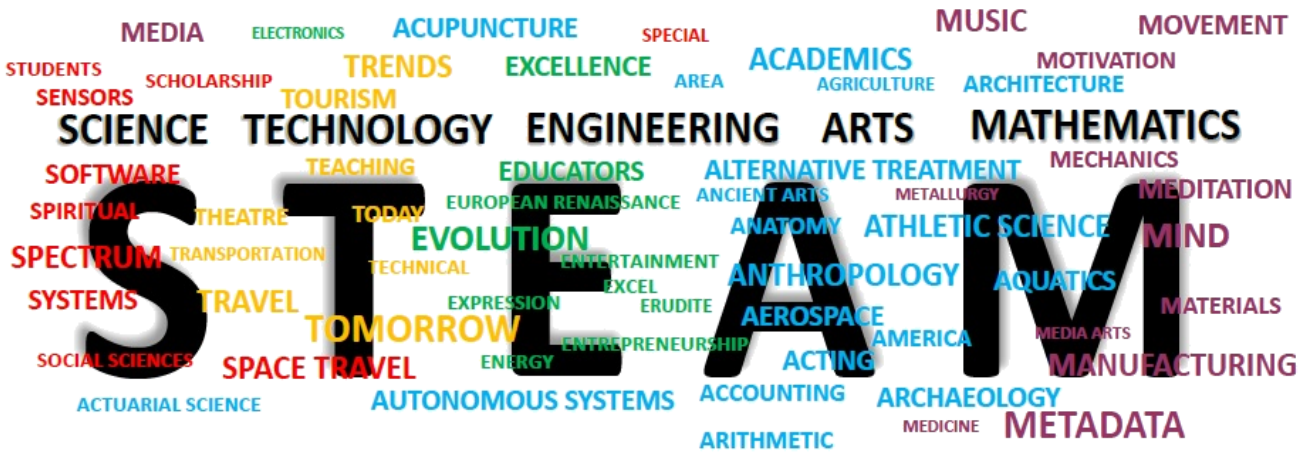
## Our Mission

To introduce our youth to a culture of interdisciplinary STEAM learning, teaching them to become creative, independent leaders of community resurgence.

## Our Vision

Enriched STEAM Communities Driving a Modern Renaissance





# WELCOME FROM THE 2018 CHAIRPERSONS

Welcome from the 2018 Chairpersons-
It is our pleasure as the co-chairs of the third annual Project Fibonacci® STEAM Conference to welcome another cohort of bright, enthusiastic and creative STEAM Scholars! The Project Fibonacci® "core team", comprised of Dan Kostelec, Amy Singletary, Andrew Burger, Jessica Griffin, Pam Mandryck, Evan Drozd, Jasmine Millner, and Founder Andy Drozd, have been working hard for a year to make this year's STEAM Conference the best of its kind!

For those new to Project Fibonacci® or the summer STEAM Conference:
The Project Fibonacci® Foundation, Inc., which hosts the summer STEAM Conference, has as its mission to introduce youth to a culture of interdisciplinary STEAM learning, assisting them in becoming creative, independent leaders of community resurgence. Now in our third year, Project Fibonacci® accomplishes this by providing a series of immersive learning programs on various STEAM topics to students, teachers and community members. Working in conjunction with schools, businesses, non-profit organizations, and experts in the varied STEAM fields, Project Fibonacci® uses STEAM education as a catalyst and driver for better workforce preparedness and economic development.

The week-long Project Fibonacci® STEAM Conference, the centerpiece of our endeavors, is complemented by intensive innovation camps on the topics of drones, robotics, and coding; internships, sponsorship of competitive STEAM events such at the EPICS in IEEE Smart City of STEAM Challenge; and a speaker series featuring STEAM experts of international renown.

We have integrated a creative thread into this summer's conference. Scholars will work to develop concepts for the "Smart STEAM Campus of the Future." Workshops, off-site tours, and other learning events and "edutainment" will round out the week. In the subsequent pages of this program you will find many details about the planned experiences of this year's STEAM Conference. Take the time to browse and ponder what your summer and future may hold. We hope that the 2018 Project Fibonacci® STEAM Conference will inspire you to new heights!

On behalf of the Steering Committee, our army of volunteers, and all involved in this summer's conference, we look forward to welcoming all of this year's STEAM Scholars: new students and previous Project Fibonacci® alumni alike!
*Full STEAM ahead!*

Maria Smith, B.S.Ed., M.S.Ed., M.A., C.A.S
2018 STEAM Conference Chair
Educational Programs Advisor
Board Member,
The Project Fibonacci® Foundation

Robert Bojanek
2018 STEAM Conference Co-Chair
Board Member,
The Project Fibonacci® Foundation

# IN REMEMBRANCE

## THE 2018 DANIEL TOWNSEND STEAM MEMORIAL SCHOLARSHIP AWARD

STEAM fields are science, technology, engineering, art, and mathematics, or applied mathematics. STEAM is designed to integrate STEM subjects into various relevant education discipline. These programs aim to teach students to think critically and use engineering or technology in imaginative designs or creative approaches to real-world problems while building on students' mathematics and science base. STEAM programs add Art to the STEM curriculum by drawing on design principles and encouraging creative solutions.

Daniel Townsend Tyler, "Danny", passed away unexpectedly in Grand Island, NE at the age of 34 years on August 10, 2017. In his memory we offer this scholarship because it not only includes the technical but also artistic aspects of life. Danny was a graduate of RFA and obtained an AAS in Welding Technology from MVCC. He was employed by Omaha Tracks of Omaha, NE, a job he loved. Those in the Rome School system and at MVCC helped him to fulfill his needs to become successful in life. Art was just as important to Danny as was the science and technology of welding and machinery. Danny also had a passion for music and was a phenomenal drummer who loved to play live with his explosive style. Our hope is that he can inspire others and that this scholarship will help those less fortunate to succeed.

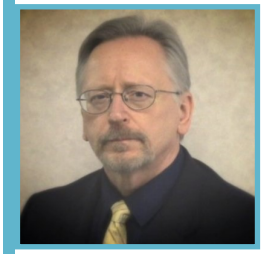
*"The most beautiful experience we can have is the mysterious. It is the fundamental emotion that stands at the cradle of true art and true science."*

*"I am enough of an artist to draw freely upon my imagination. Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world."*

-Albert Einstein

Advanced Automation Corporation

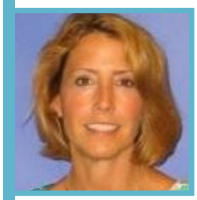
# STEERING COMMITTEE MEMBERS



**Andrew Drozd**
Project Fibonacci®
Chairman &
Executive Director

**Maria Smith**
2018
Conference
Chair

**Robert Bojanek**
2018
Conference
Co-Chair



**Katrina Bratge**
SUNY Cortland
College & Career
Fair Coordinator

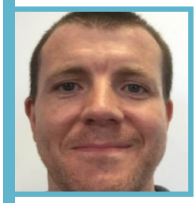
**Jessica Griffin**
ANDRO
Workshop
Coordinator

**Liz Palumbo**
ANDRO
Local
Arrangements

**Andrew Burger**
FIRST Robotics
Technical Support &
Innovation Expert

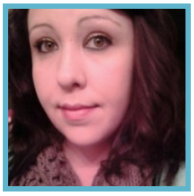
**Martha Group**
VVS
Curriculum

**Julia Pilny**
BAH
Arts & Sciences
Curriculum

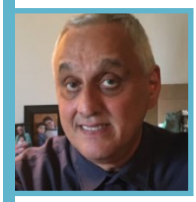


**Corey Colmey**
Corey Colmey Drum
Instruction
Entertainment

**Daniel Kostelec**
STEAM Outreach
Coordinator



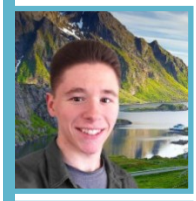
**Amy Singletary**
ANDRO
Registration &
Publications



**Orlando Destito**
The Beeches
Local Logistics &
Transportation

**Alicia Koster**
South Orangetown
Curriculum

**Ramona Smith**
City of Rome
Council Woman
Curriculum



**Evan Drozd**
STEAM Scholar
Advisory Board

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ANDRO
Technical Writer &
Secretary

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Conference Direct
Conference
Management

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Tourism Chair

**Nathan McDonald**
Curriculum

**Barbara Welch-Drozd**
Volunteer
Coordinator

**Tim Gaffney**
Oriskany CSD
Curriculum

**Jasmine Milner**
ANDRO
Marketing & Digital
Media Specialist

**Bryant Wysocki**
Ph.D.
Curriculum

Not Pictured:
Jean Burgdorf, Community Outreach  Louise Rutherford, Curriculum  Tara Day, Music Curriculum

# STEAM FACILIATORS

**Beth Debany**
Vernon-Verona-Sherill CSD (retired)
**BLUE TEAM**

**Kyra Hereth**
Sage College
**GREEN TEAM**

**Margaret Jevens**
Rome Free Academy (retired)
**YELLOW TEAM**

**Penny Mann**
Oriskany CSD
**PURPLE TEAM**

**Tamalin Martin**
Camden CSD
**RED TEAM**

**Carol Wojdyla**
Utica CSD (retired)
**ORANGE TEAM**

## ADDITIONAL FACILITATORS:

Joan Seif- Pharmacist

Kevin Morrisroe– Notre Dame HS

Jim Dulak– IBM (retired), MVAS

Rose Farewege– Speech Therapist (retired)

Philip Davidowsky– Watkins Glen CSD

Donna Radlowski– Notre Dame HS (retired)

Phoebe Weigand– Hillside Work-Scholarship Connection & Rome Free Academy

Peter Yaginski– MVAS

Joel Seif– MVAS

Mary K. Swerediuk– Rome Teacher (retired)

project FIBONACCI®
FOUNDATION, INC.

# CAMPUS MAP

On-Site Security: Cosnett & Associates Investigations

On-Site Medics: Medics on the Ball
Jeffrey Pellicie & Daniel Gear


## Pool is only open when lifeguard is on duty.

Monday, Wednesday – 9:00-10:00am
Tuesday, Thursday, Friday – 8:15-9:45pm

## Board Games at the Inn Every Night from 10:00-11:00pm

## Emergency Contacts:

The Beeches (315) 336-1700
Dan Kostelec (570) 604-7299
Andrew Drozd (315) 335-1238

# WANT TO WIN UP TO $10,000* FOR PROJECT DEVELOPMENT & IMPACT YOUR COMMUNITY & EARN $1,000 IN COLLEGE SCHOLARSHIP FUNDS?

## Join the Smart City of STEAM Challenge

Presented by The Project Fibonacci® Foundation, Inc. and EPICS in IEEE

EPICS IN IEEE

ENGINEERING PROJECTS IN COMMUNITY SERVICE

By pairing with a non-profit organization, teams or individuals will brainstorm a product or service that will positively impact their community.

Team members must have attended past Project Fibonacci® programs or plan on attending the 2018 STEAM Conference. Participates will be eligible to receive scholarship funds toward their tuition by joining the challenge!

Project Fibonacci® can provide mentors for the challenge and facilitate your partnership with a nonprofit community service organization.

project FIBONACCI® FOUNDATION, INC.

MORE INFORMATION ON PAGE 50

Visit ProjectFibonacci.org for full details

Sign your team up today by emailing info@projectfibonacci.org

Enriched STEAM Communities Driving a Modern Renaissance

## DIAMOND+ SPONSOR

# The Community Foundation of Herkimer & Oneida Counties, Inc.

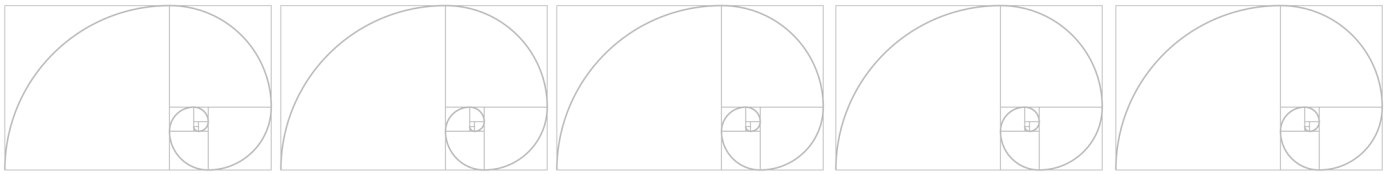

The Project Fibonacci® Foundation, Inc. is beyond grateful to have received a $40k grant provided by the Community Foundation of Herkimer & Oneida Counties, Inc.

THE FOUNDATION

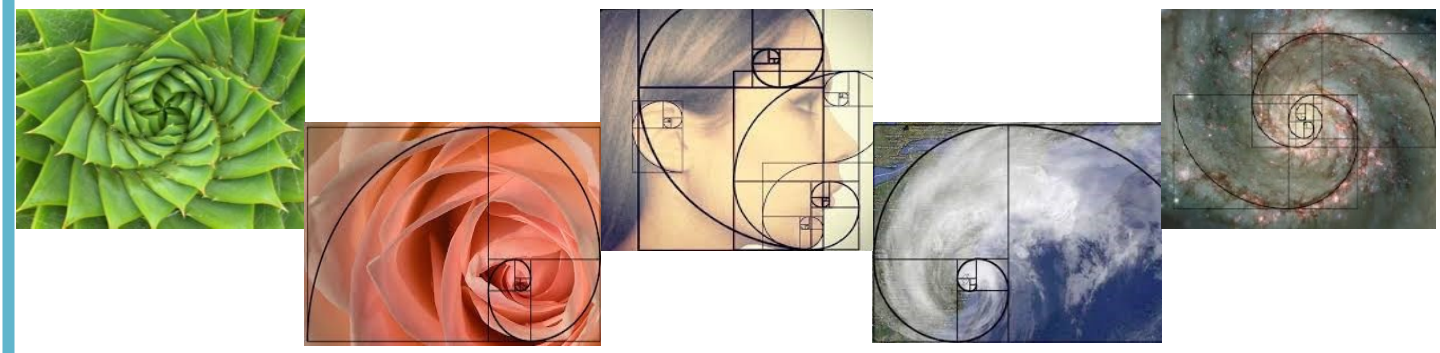
We can't thank the Foundation enough for their continued support in our mission of using STEAM education as a catalyst for workforce preparedness & economic development.

# WHO WAS FIBONACCI?

Project Fibonacci® has been inspired by the renowned mathematician, Leonardo Bonnaci, later nicknamed "Fibonacci" by his contemporaries and historians.

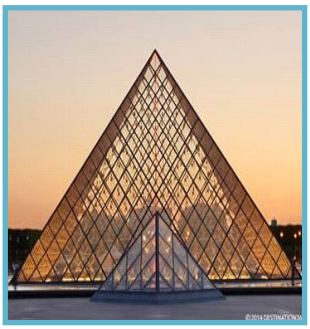


During the 13th Century, Fibonacci "discovered" a branch of mathematics that neatly describes emergent patterns we often encounter in science, engineering, nature, art, music and elsewhere throughout the cosmos.



The Fibonacci sequence is a series of numbers in which a number is found by adding the two numbers before. Starting with 0 and 1, the sequence will then be 0, 1, 1, 2, 3, 5, 8, 13, 21, 34 and so forth.

# DESIGNING THE SMART CAMPUS OF THE FUTURE



During the conference, scholars will engage with various luminaries in designing the "Smart STEAM Campus of the Future", a learning environment that brings together industry experts and educators with learners aged 6 to 106. Engineers, technology experts, builders, authors, and visionaries, like Project Fibonacci® founder, Mr. Andy Drozd, along with a small army of dedicated area educators (i.e., the "Color Team Facilitators"), will be on hand during the conference to guide scholars through the "design process" to complete concepts for all or a portion of the 55-acre campus, currently occupied by The Beeches Inn and Conference and Business Park.

Each day of the conference, scholars will attend workshops, off-site tours, and talks by people whose expertise lends itself to the planning, designing, and construction of structures inhabited by learners, workers, and residents.

Scholars will work within a "Design Team", which will be a subset of their Color Group and select a focus for their design.

**FOCUS:** Each Design Team will propose a space or spaces that could be incorporated into the Project Fibonacci® Smart STEAM Campus of the Future and/or propose solutions to one or more aspects of the campus, such as the utilization of alternative energy, technologies, the design of outdoor spaces, or the like.

**THE FOCUS OF THE TEAM'S DESIGN MAY:**

- Be a space serving a single function, such as a lecture hall or an exhibit space;
- Encompass multiple functions, such as a lecture hall with exhibit space and outdoor courtyard;
- Be a master plan for the 55-acre campus encompassing various buildings;
- Focus on one or more aspects of the campus, such as its energy, technology, landscape, etc.
- Encompass any combination of the above

# DESIGNING THE SMART CAMPUS OF THE FUTURE

PROCESS: Each day of the conference, Design Teams will be stepped through various planning stages. Scholars are strongly encouraged to stay on task, get all daily assignments accomplished within the designated time frames, and to continue investigating ideas. The goal is to conceive of and communicate a conceptual design, not a finalized, workable, concrete plan (big difference between the two!)

Design Teams are to research and become as informed as possible as they develop their ideas. In some cases, information learned at keynote and workshop presentations lend themselves directly to the design project. However, to complete their concepts scholars will also have to seek out experts and/or do their own research. For example, if a Design Team is developing a concept for a lecture hall, the team might research acoustics, lighting, seating, pertinent technologies, flooring, handicap accessibility, and the like.

PRODUCT: Each Design Team will prepare for a poster session and share with attendees of the STEAM Fair (parents, community members, volunteers, business leaders, etc.) held on the final day of the conference. Concepts may be shared by any or more than one of these means:

- Posters
- Videos
- PowerPoint presentations
- Blueprints or computer-generated images
- Hand-rendered images
- Three-dimensional representations
- Brochures or other print and/or electronic media

Written descriptions, plan views, elevation views, computer "fly throughs", and models are all acceptable means of demonstrating a team's concepts.

MEDIA FAIR PRESENTATION: All members of the Design Team should be present at the Media Fair and available to present the team's ideas to visitors. By week's end, all team members will have learned about and/or taken a deeper dive into new information and will have much to say about his or her contribution to the team.

## MONDAY, JULY 23

# DR. ALEX FILIPPENKO

@4AstroAlex

### Einstein Triumphs: The Magnificent Detection of Gravitational Waves

Dr. Alex Filippenko is one of the world's most highly cited astronomers and is an elected member of the *National Academy of Sciences* as well as the *American Academy of Arts and Sciences*. He has appeared in more than 100 TV documentaries and is the author of *The Cosmos: Astronomy in the New Millennium*. Alex Filippenko has been actively involved with the Project Fibonacci® Foundation, Inc. as a 2016 keynote speaker and is now part of our Honorary Members Advisory Board.

HISTORY

TED
Ideas worth spreading

THE UNIVERSITY OF CALIFORNIA · BERKELEY · 1868 · LET THERE BE LIGHT

## FOUNDER & PRESENTING SPONSOR OF THE PROJECT FIBONACCI® FOUNDATION, INC.

# ANDRO

***Innovation...From Research to Systems!***

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**Syracuse Office:**
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**www.androcs.com (315) 334-1163**

ANDRO Computational Solutions, LLC is a scientific research & development company supporting defense and commercial markets. ANDRO is a leader in developing emerging prototypes for cyber-secure RF communications, command and control (electromagnetic spectrum management, cognitive radios) including multisensory resource management for radar target tracking and related applications. ANDRO is also a strong proponent of STEAM education as a catalyst for workforce and economic development.

## ANDROMetaX CORP.

ANDROMetaX, Corp., is an ANDRO Company providing Spectrum Management as a Service (SMaaS) including wireless cyber-secure solutions for the federal and civilian Internet of Things (IOT) marketplace:

- Unmanned Air Systems (UAS) RF Sense & Avoid
- Autonomous Systems & Vehicles
- “Big (Spectrum) Data” Processing
- Medical Technologies & Wearable Biosensors
- Brain-Computer-Interface (BCI) Applications
- Medical Image Feature/Anomaly Detection, Image Analysis & Classification

# 2018 SPEAKERS SERIES

## TUESDAY, JULY 24

### STEAM-TED Talk

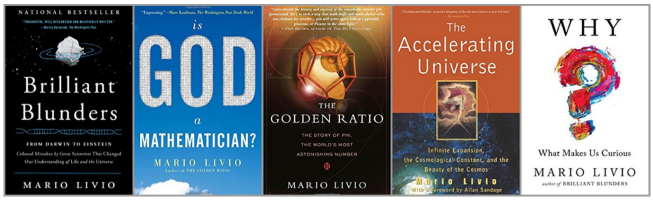
An Accomplished Career, From Academics to Research to Swimming the English Channel Twice!
Col. Timothy Lawrence, Ph.D.
Director, Air Force Research Laboratory Information Directorate, Rome, NY

# DR. MARIO LIVIO

### Human Curiosity

@Mario_Livio

His latest book, *Why? What Makes Us Curious* appeared in the U.S. in July, 2017




Dr. Mario Livio is an internationally known astrophysicist, a best-selling author, and a popular speaker. He is a Fellow of the American Association for the Advancement of Science. Dr. Livio has published more than 400 scientific papers on topics ranging from Dark Energy and cosmology to black holes and extrasolar planets. He is also the author of six popular science books, including The Golden Ratio and Is God A Mathematician?

# SILVER SPONSORS

United Way sponsored students from the Rome and Western Oneida County to attend the 2018 STEAM Conference.
Thank you United Way for your contribution!

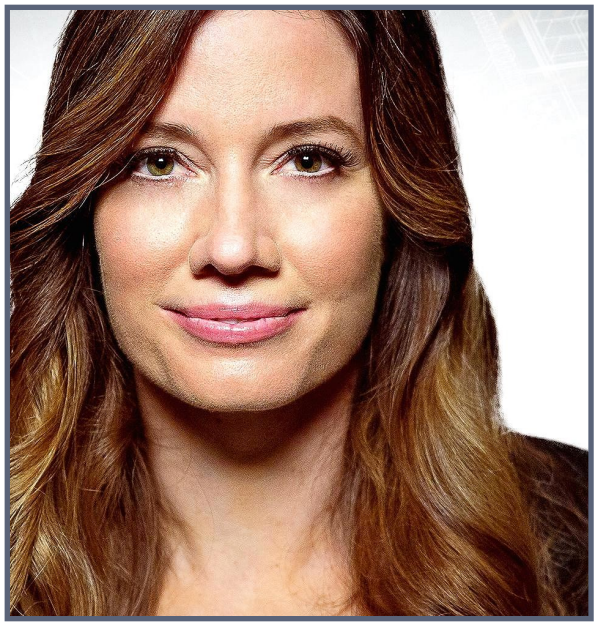
## ENRICHED STEAM COMMUNITIES DRIVING A MODERN RENAISSANCE

nationalgrid

The support of National Grid helped students from the Capital region receive scholarship funding to attend the 2018 STEAM Conference.
Thank you National Grid for your contribution!

## WEDNESDAY, JULY 25

# DEANNE BELL



@Deanne_Bell

## Imagine the Impossible

Featuring Mentalist Robert Channing &
The Human Calculator Scott Flansburg

Details on page 24

Deanne Bell is an engineer, the founder of FutureEngineers.org, a platform that hosts national Invention challenges for students and a television host. She received a B.S. in mechanical engineering from Washington University in St. Louis. Prior to becoming a TV host, Deanne designed opto-mechanics for military aircraft sensors and worked as a senior application engineer for a CAD software startup in Boston. She is currently a co-host for CNBC's 'Make Me a Millionaire Inventor, and her previous hosting credits include ESPN, Discovery Channel, PBS, National Geographic, and DIY Network.

CNBC ESPN PBS diy network Discovery CHANNEL NATIONAL GEOGRAPHIC

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For Education &
Community Enrichment

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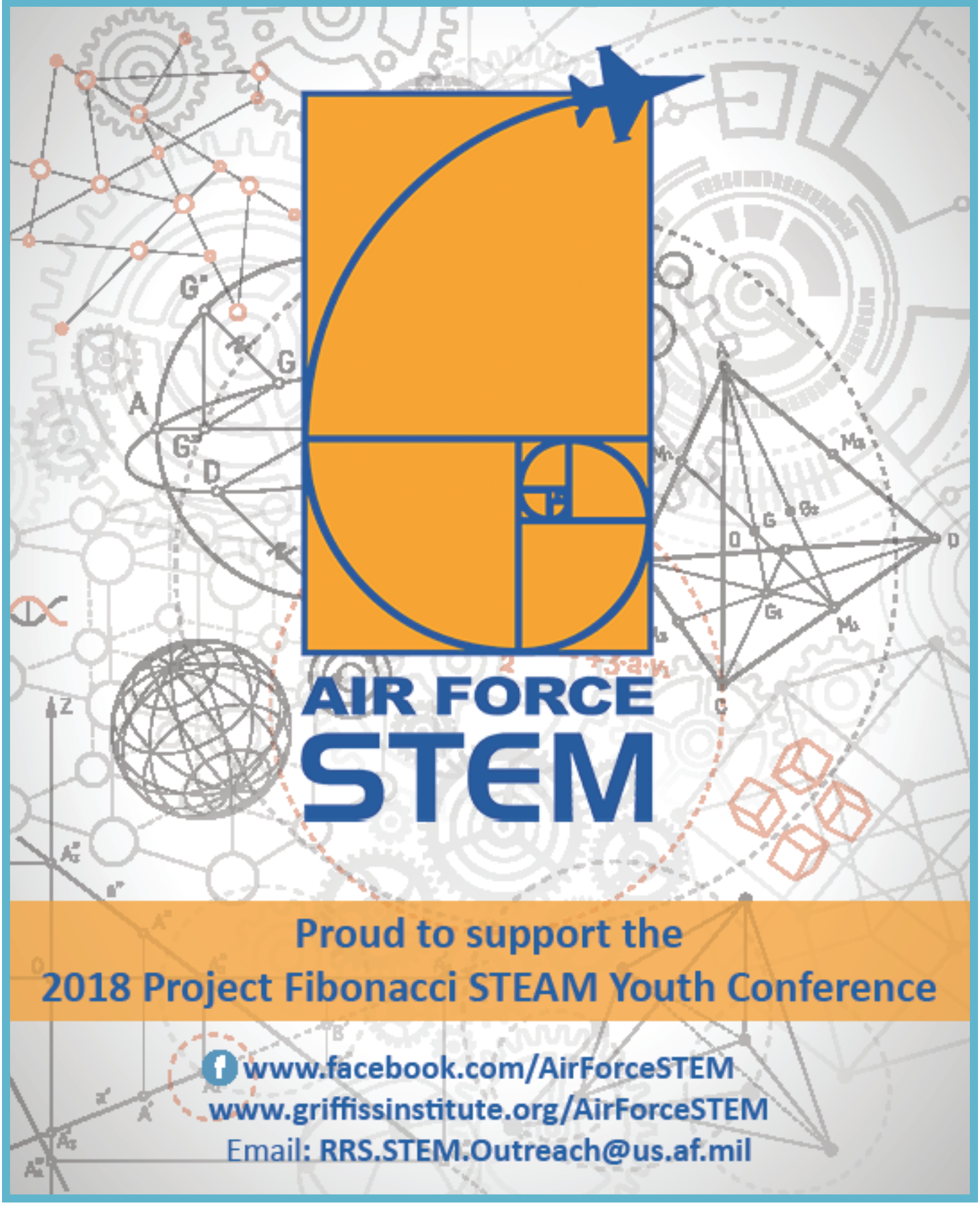

# BRONZE SPONSOR


## SPECIAL THANK YOU TO BUSINESS MACHINES EQUIPMENT

### For their monetary and product donation to support the 2018 Project Fibonacci® STEAM Conference!

Locally owned and operated, Business Machines and Equipment, Inc. (BME) has provided office solutions throughout upstate New York for over 20 years. With offices in Greater Utica and Syracuse, and a distribution center in Mohawk and new leadership in 2014 BME has grown significantly by providing quality service and products that customers have come to expect – fast and reliable at the best value.

bmecompany.com

# 2018 PROJECT FIBONACCI SPEAKERS SERIES

## THURSDAY, JULY 26

# DR. BRANDY SCHILLACE

@bschillace

### Stranger than Fiction: Creative Genius Inventing the Future

Historian and author Brandy Schillace, PhD, writes at the intersections of medical science, history and literature. Her work for the Dittrick Museum of Medical History brings her in contact with rare artifacts of history, as well as with other museum institutions worldwide. As a writer/research and Editor-in-Chief of the BMJ's Medical Humanities, Brandy travels extensively abroad to see unique collections and learn their stories. Her book, Clockwork Futures, offers a social history of social technology and "steampunk" science in the age of manufactured power. Brandy has appeared as an expert on the Travel Channel's Mysteries at the Museum and presented in a TEDx talk.

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travel CHANNEL

# BRONZE SPONSOR

# SPECIAL EVENTS

## MONDAY, JULY 23

### MICHAEL MILLER

Michael Miller is a prolific and best-selling writer that has written over 200 books in the past three decades on a variety of topics from computers to music to business. He is known for his casual, easy-to-read writing style and his ability to explain a wide variety of complex topics to an everyday audience. Collectively, his books have sold more than a million copies worldwide.

## MONDAY, JULY 23

### STARGAZING

### 9:30-10:30

Join the Mohawk Valley Astronomical Society as we look to the skies for a private stargazing session.

*Rain Date: Tuesday, July 24*

MOHAWK VALLEY ASTRONOMICAL SOCIETY

Public Stargazing

Monthly Programs

info@mvas-ny.org

mvas-ny.org

MVAS

## TUESDAY, JULY 24 & THURSDAY JULY 26

### GHOST HUNT AT THE ROME CAPITOL THEATRE

Join the Rome Investigators of the Paranormal for an exclusive ghost hunt of the historic Rome Capital Theatre. Opened in 1928, the Capitol Theatre was part of the Kallet chain of movie houses until it closed in 1974. After extensive renovation, the theatre re-opened in 1985 as the non-profit Capitol Civic Center, offering classic films, live theatrical performances and concerts. This beautiful theatre is no stranger to paranormal occurrences that date back more than 30 years. Witnesses have reported a shadow figure of a man, organ music, whispered conversations and even the sounds of an ongoing show late at night.

# WEDNESDAY, JULY 25

## IMAGINE THE IMPOSSIBLE TRIPLE FEATURE

SPONSORED BY: First Source Live Smarter.

For Education & Community Enrichment

### DEANNE BELL

Deanne Bell shares how her creativity and engineering skills empower her to dream up new ideas, take risk, and make it happen. From traveling the world, to hosting television shows, and now as a tech entrepreneur, Deanne thrives on hatching new ideas and turning them into reality.

### ROBERT CHANNING

Robert Channing is a multi-talented speaker and entertainer. He's an American artist, speed-painter, mentalist/hypnotist, author, motivational speaker as seen on America's Got Talent, The Steve Harvey Show, Today Show, Good Morning America, Fox & Friends and for thousands of audiences worldwide.


### SCOTT FLANSBURG

Scott Flansburg, known as The Human Calculator® is an educator, speaker, Guinness World Record holder, bestselling author, and host of "The Human Calculator" tv show on the History Channel.

# SPECIAL EVENTS

## THURSDAY, JULY 26

@profmcmanus

### DR. HILARY MCMANUS

Dr. Hilary McManus will discuss her role in a global initiative for women in science and her February journey to Antarctica. She is one of the first participants in the Homeward Bound organization, which is targeting 1,000 women with science backgrounds over the next 10 years to become the decision-makers who will develop new policies and lead the change. She is a member of the biology faculty at Le Moyne College, where she earned the Louis D. DeGennaro Undergraduate Mentor Award.

### PRESENTED IN PART BY THE GIRL SCOUTS OF NYPENN PATHWAYS

girl scouts of nypenn pathways

## FRIDAY, JULY 27

### KEVIN DELANEY

Kevin Delaney is a performer, playwright, and educator based in Little Rock, Arkansas. He has presented science demonstrations on several television programs including The Rachael Ray Show and The Untitled Action Bronson Show, and began appearing as the resident science presenter on The Tonight Show Starring Jimmy Fallon in 2014.Kevin was the host of Street Science on the Science Channel for two seasons, focusing on unique experiments caught in slow motion footage. Delaney's presentation will include Borosilicate Glass, Hands on Fire and Steel Wool Sparklers.

# WAKE-UP WORKSHOPS

## MONDAY, WEDNESDAY, FRIDAY*
## 9:00-10:00AM

### GIFTED:
### Gain Instruction for Talented Expression Delivery

Join Tara Day Monday, Wednesday & Friday morning to have fun while receiving vocal coaching and assistance to support and cultivate your artistry. Participants will be invited to perform at the closing ceremonies.

### Zumba with Jasmine Millner

Start your day with Project Fibonacci's very own Jasmine Millner as she gets your feet moving and heart pumping with fun and energetic Zumba!

### Self-Defense with Heath Waterman

Learn how to cultivate preventative behaviors, recognize the 4 phases of self-defense and perform basic strikes and footwork.

### Open Swim

Weather permitting. Please Note: STEAM Scholars are only allowed to swim when a life guard is on duty. For a list of times the pool is open, visit page 8

PLEASE DRESS APPROPRIATELY FOR WAKE-UP WORKSHOPS
DON'T BE LATE! STEAM WORKSHOPS BEGIN AT 10:15AM

# MONDAY STEAM WORKSHOPS

## INTRO TO COMPUTER AIDED DESIGN (CAD)

### 9:00-10:00AM & 10:15-11:45AM

**Michael Bush, First Robotics**

Learn the fundamentals of Computer Aided Design and why it is a useful skill to have no matter what career field you pursue! STEAM Scholars will also learn the basics of Autodesk Inventor.

## STATIC ELECTRICITY IN ELECTRONIC MANUFACTURING 9:30-11:00AM

**Ron Gibson, EOS/ESD Association, Inc.**

STEAM Scholars will understand static electricity & discharge, static control methods and will be able to recognize daily ESD threats.

## THAT REALLY RESONATES WITH ME!

### 10:15-11:15 & 11:30-12:30

**Dr. Bryant Wysocki, Nathan McDonald, Dr. Cory Merkel**

From swing sets to bridges to violin strings, everything can be made to vibrate if given the right kind of energy. Experiment to see the pleasing, useful or destructive effects of this physical phenomena in everyday experiences.

## MATH AS ART: QUILTING DESIGN

### 10:15-11:15 & 11:30-12:30

**Audre Katz & Cindy Solan**

Discover geometric designs in quilting and learn how to make any size quilt with simple math. Learn how math can be a creative force while actually making a simple wall hanging from mathematical design.

# MONDAY STEAM WORKSHOPS

## STRING INSTRUMENTS: DESIGN & PROPERTIES

### 10:15-11:15 & 11:30-12:30

**Julia Pilny, Margaret Jevens, Michelle Wilcox, TJ McAvaney & Joe Karwacki**

Discover the design of stringed instruments and the relationship to the golden ratio and Phi while also being able to calculate where the harmonics lay on the instruments through the use of math and physics that interplay with art and interpretation to create musicality.

## THE SCIENCE OF PHOTOGRAPHY

### 10:15-11:15 & 11:30-12:30

**Michael L. Fanto**

Discover the fundamental principles of light and optics, then using those principles you will explore the inner workings of a camera. Combining this information will help to describe how a photograph is formed and the properties of life that we can exploit to produce a beautiful image.

**Special Workshops with Keynote Speaker Dr. Alex Filippenko**

## Size and Distance Scales in the Universe

### 10:15-11:15

Explore the relative sizes and distances of atoms, humans, planets, stars and galaxies in the Universe by using ratios and various familiar objects.

## Illuminating Astrophysical Principles

### 11:30-12:30

Conduct simple yet effective demonstrations that illustrate various principles important in astrophysics, such as spectral absorption and emission lines, lunar phases, and the expansion of the Universe.

# TUESDAY OFF-SITE TOURS

## OLD MAIN

### Utica Psychiatric Hospital

Built in 1843, the New York State Lunatic Asylum later became the Utica Psychiatric Center and finally the Mohawk Valley Psychiatric Center. It is locally known as "Old Main" and was the first publicly-funded institution to care for and help treat the mentally ill.

Designed by William Clarke, it was one of the finest examples of Greek Revival architecture in its day. Set on 130 acres, the original design was to form a quadrangle, four identical buildings surrounded by a courtyard. Due to financial constraints after the foundations were laid, only one of the four structures was initially built.

Although incomplete at the time, first patients were admitted in 1943. Dr. Amariah Brigham, the asylum's first superintendent, published the American Journal of Insanity (later named the American Journal of Psychiatry, still in print today). The journal was the first of its kind in the English language and grew Utica's reputation world-wide as a center of psychiatry.
Within two years of opening, the asylum was at full capacity. "Old Main" has been on the National Registry for Historic Places since 1971.

## RUTGERS PARK

### Architectural Walking Tour


Enjoy an outdoor walking tour led by architect Mike Bosak where he will reflect on the architectural style of Rutger Park's Mansion #3 and its purpose as well as the notable Utican who commissioned its build and the historical context in which it was commissioned. Tour the mansion and grounds while learning what it means to be on the National Historic Registry as well as the purposes for which the mansions were used and the preservation efforts.

# TUESDAY OFF-SITE TOURS

## Munson-Williams-Proctor Arts Institute (MWPAI)

Taking a look at fine and decorative art objects through a scientific lens, unveiling the technology behind an artist's techniques and materials, color theory and engineering design behind kinetic art and architecture.

STEAM Scholars will also examine the unique design features that brought Munson-Williams-Proctor Arts Institute to international acclaim and changes the changes made to the originally 1960 modernist style designed by Philip Johnson.

## Masonic Medical Research Institute

### THE FUTURE OF RESEARCH AT MMRI

Tour the newly renovated state-of-the-art 2nd floor molecular biology wing as well as other internal areas where medical research is conducted at MMRI. Understand the cardio vascular research that focuses on areas of cardiac development disease, hypertrophy and heart failure, diabetes and metabolism, cardiac immunology and electrophysiology. Learn the interdisciplinary collaborations amongst the incredibly talented MMRI investigators. Enhance each student's ability to interview and increase their knowledge of the many areas of medical research conducted in Utica, NY.

# WEDNESDAY STEAM WORKSHOPS

## WAKE-UP WORKSHOPS

### 9:00-10:00AM

Gifted, Self-Defense, Zumba, Open Swim
Creating Interactive Art- Kristie Boisen

## ROME ARCHITECTUAL WALKING TOUR

Take an educational walking tour of Downtown Rome featuring various architectural styles including St. Peters Church, the Court House, Old City Hall (Flemish style), and the Episcopal Church and St. Mary's church which highlight the Gothic style of architecture.

## IMPROVISING AND COMPOSING JAZZ

### 10:15-11:15 & 11:30-12:30

**Dr. Michael Woods, Hamilton College**

Jazz is America's classical music which teaches team work, creativity and editing. Learn how to complete a simple jazz solo, write a jazz tune and understand jazz harmonies.

## BITCOIN, BLOCKCHAINS, CRYTOCURRENCIES & SMART CONTRACTS

### 10:15-11:15 & 11:30-12:30

**Stuart W. Card, Chris Smolen**

Learn the basic concepts of blockchains and cryptocurrencies and how to post a transaction to a blockchain.

## ANIMAL ADAPTATIONS

### 10:15-11:15 & 11:30-12:30

UTICA ZOO

**Mary Hall, Justin Hordender, Nicolette Hajdasz Utica Zoo**

Join the Utica Zoomobile to understand animal adaptations and learn the difference between physical and behavioral adaptation.

# WEDNESDAY STEAM WORKSHOPS

## SCIENCE OF THE PARANORMAL

### 10:15-11:15 & 11:30-12:30

**Dr. David DeProspero, Pete Leonard, Rich Nikodem**

**Rome Investigators of the Paranormal**

People and religions all over the world acknowledge the existence of other-worldly forces that interact with us in our perceived reality. Does paranormal activity really exist? How is a paranormal investigation actually conducted, and what technology is used to aid the investigators? Join RIP for an in-depth scientific look into the world of the paranormal , and find some answers to your deepest questions.

## WANT EVEN MORE GHOSTLY FUN?

Join the Rome Investigators of the Paranormal on Tuesday or Thursday night for a paranormal investigation at the historic Rome Capitol Theatre. More information available on page 23

## THE ART OF DRONES

### 10:15-11:15 & 11:30-12:30

**Michael Massurin, A.T. "Tom" McLean**

The use of drones is increasingly global. Part of that use centers around photography and filmmaking. This workshop will explore how you can safely use a drone to tell a story or capture an amazing picture.

## PRACTICAL INFORMATION THEORY

### 10:15-11:15 & 11:30-12:30

**Nathan McDonald, Dr. Cory Merkel**

What is information? How do you quantify a 'hunch'? Information theory has myriad uses in everyday life, as illustrated through logic puzzles, magic tricks and other whimsical fun.

## CYBER SECURITY 101

### 10:15-11:15 & 11:30-12:30

**John Marsh, SUNY Polytechnic Institute**

Learn the basics of cyber security

# THURSDAY OFF-SITE TOURS

## SAAB DEFENSE & SECURITY

### SENSOR SYSTEMS R&D AND MANUFACTURING FACILITY

Saab Defense and Security USA provides solutions and technologies that are central to U.S. defense and homeland security. The Syracuse headquarters facility is the home base for the Senor Systems Division, which develops and manufactures surface-based radar systems and subsystems for surveillance, defense, and force protection applications. This tour will introduce you to the technology used in this high-tech industry, how a concept is taken from design to production, and the different careers available across all functional areas. Participants will have the opportunity to ask questions of employees who work in disciplines including software, electrical & mechanical engineering, manufacturing, finance, business development, program management and more.

## NEWHOUSE SCHOOL OF PUBLIC COMMUNICATIONS

### SYRACUSE UNIVERSITY

The S.I. Newhouse School of Public Communications offers information sessions and facility tours for prospective undergraduate students that gives details regarding all majors and academic offerings. Our visit will include a tour of the facilities and TV production studios.

## BIOTECH ACCELERATOR

CENTRAL NEW YORK Biotech Accelerator

STEAM Scholars will tour the Biotech Accelerator and Center of Excellence, with hands-on access to the National Grid Creation Garage, Collaboration Lab, and Upstate MIND (Medical Innovation and Novel Discovery Center).

Lunch Catered by Original Grain
Dessert Donated by Insomnia Cookies

FEATURING AFTERNOON KEYNOTE SPEAKER: Dr. Hilary McManus

# THURSDAY OFF-SITE TOURS

## MOST
## MUSEUM OF SCIENCE & TECHNOLOGY

Milton J. Rubenstein Museum of Science & Technology

Explore the Museum of Science & Technology and enjoy a special planetarium viewing of the Changing Universe:
How does the night sky change over time? Have you ever wondered what the sky would look like if you could time travel? Travel back in time and see the stars that Neanderthals saw. Then travel into the future to see how things will change. Finally return to our time to view the constellations viewable that evening.

## KING & KING
## ARCHITECTUAL FIRM

king + king ARCHITECTS

For 149 years, King & King has been serving the Upstate New York area by building outstanding client relationships and creating award winning designs. Founded in 1868 by Architect Archimedes Russell, King & King takes pride in their distinction as the oldest architectural firm in the state. They took a leadership stance in advancing sustainability by refurbishing an abandoned warehouse into their new headquarters. The structure is now a showcase for green design in practice featuring cutting edge sustainable factors that encompass air quality, day lighting, heat reduction and more.

# THURSDAY EVENING WORKSHOPS

## A DIFFERENT KIND OF CONVERSATION
## 8:45-9:45PM

### John Bertrand, Lead with Rhythm

The exploration of critical communication through rhythm.

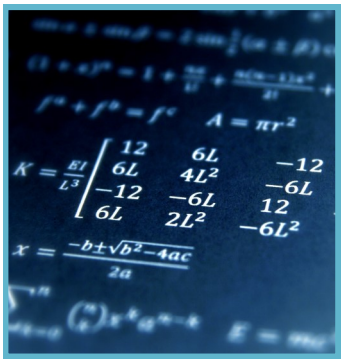
# FRIDAY STEAM WORKSHOPS

## AFRL– ROME RESEARCH SITE TOUR*

### 9:00–10:30

Take a tour of cutting edge technology from the Air Force Research Laboratory including the Condor Cluster Playstation Farm, anechoic chamber, visualization technology, cryptography demo and their speech processing capabilities.

*All STEAM Scholars must be a US Citizen and provide drivers license if over the age of 18



## ART OF THE ALGORITHM

### 9:00–10:30

**Kyle Bojanek, University of Chicago**

The Algorithm has had a place in art going back centuries. As computation becomes more integrated with society, how has this redefined the idea of the Algorithm in art? Going forward, how will future technologies influence art and vice versa.

## MATH IN STORIES

### 9:00–10:30

**Anna Radlowski, Mohawk Valley Community College**

How have mathematicians used stories to help explain hard-to understand ideas? How have writers used math as a literacy device? Explore these questions as well as the question of what is math, anyway?

# FRIDAY STEAM WORKSHOPS

## NUCLEAR– FROM THE BOMB TO MEDICINE

### 9:00-10:30

**Mary Jo Post, CNMT, RT**

Looking at the background and properties of radioactive materials and the art of using radioactive materials to diagnosis and treat illnesses of today. We will also explore the ways we have learned to utilize the radioactive materials at our disposal, either man made or naturally occurring.

## FIBONACCI IN MUSIC

### 9:00-10:30

**Corey Colmey**

Conduct a detailed analysis and discussion of compositional techniques used to create the music inspired by the Golden Mean.

## CRIME SCENE INVESTIGATION

### 9:00-10:30

**Rome City Police Department**

Join the Rome City Police Department in a detailed Crime Scene Investigation. Learn the in-and –outs of CSI hands-on.

## GIFTED

### 9:00-10:30

**Tara Day, Julia Pilny, Dr. Woods**

The final GIFTED workshop in which musical professionals will help participants achieve a well-rounded performance while practicing for the closing ceremonies performance.

# MONDAY-FRIDAY SCHEDULE BREAKDOWN

## 8:00-9:00 AM
DAILY MORNING WAKE-UP ACTIVITIES
STEAM SCHOLARS GET READY FOR THE DAY & ENJOY BREAKFAST
PROVIDED BY THE BEECHES

## 9:00-10:00AM
WAKE-UP WORKSHOPS
ACTIVE WORKSHOP BLOCK & OFF-SITE TOURS

## 10:00-12:30 PM
STEAM FUELED WORKSHOPS

## 12:30-1:20PM : LUNCH

## 1:30-4:00 PM
DESIGN STRAND-
DESIGN THE SMART STEAM CAMPUS OF THE FUTURE!

## 4:00-5:00 PM
PROJECT DEVELOPMENT

## 5:15-6:15 PM
DINNER

## 6:15-6:30 PM
KEYNOTE TRANSITION

## 6:30-8:00 PM
KEYNOTE SPEECH
(MERCHANDISE AVAILABLE FOR PURCHASE, LIMITED BOOK SIGNING)

## 8:30-10:00 PM
PROJECT DEVELOPMENT AND/OR SOCIAL EVENT

# SUNDAY SCHEDULE

| TIME | ACTIVITY | LOCATION |
|---|---|---|
| 12:00-2:30PM | STEAM Scholar Check-In & Icebreakers | The Beeches Conference Center |
| 3:00-4:15PM | Welcome Reception presented by The Shoreline Group<br>• Color Guard<br>• Welcoming Remarks– Maria Smith, 2018 Chairperson<br>• STEAM Campus Vision– Andy Drozd, Project Fibonacci® Founder & Chairman of the Board<br>• Project Details & Week-Overview– Maria Smith<br>The Shoreline Group | Boardroom |
| 4:15-5:00PM | Hotel Check-In | The Inn |
| 5:00-6:00PM | Dinner | Boardroom |
| 6:15-8:00PM | Smart City of Gumdrops Challenge<br>• Introduction of EPICS in IEEE- Robert Bojanek, 2018 Co-Chairperson | Boardroom |
| 8:00-9:30PM | Social Reflections & Survey | Tent/Lawn |
| 10:00PM | STEAM Scholar Inn Sign-In | Inn |

# MONDAY SCHEDULE

| TIME | ACTIVITY | LOCATION |
|---|---|---|
| 8:00-8:50AM | Breakfast | Boardroom |
| 9:00-10:00AM | Wake-Up Workshops | |
| 10:15-11:15PM | STEAM Workshops Round One | |
| 11:30-12:30PM | STEAM Workshops Round Two | Boardroom |
| 12:30-1:30PM | Lunch | Boardroom |
| 1:30-3:00PM | Design Strand | |
| 3:00-4:00PM | AFTERNOON KEYNOTE: Michael Miller Designing the Smart City of STEAM using the Internet of Things | Turin Room |
| 4:00-5:00PM | Project Development | |
| 5:00-6:00PM | Dinner | Boardroom |
| 6:10-6:25PM | Keynote Transition to RFA | |
| 6:30-8:00PM | Keynote: Dr. Alex Filippenko | RFA |
| 8:00-8:15PM | Transition to Beeches | |
| 8:15-10:00PM | • Project Development & Survey Reflections<br>• Star-Gazing with Dr. Alex Filippenko provided by the Mohawk Valley Astronomical Society (MVAS) | Beeches Lawn–Weather Permitting*<br>*Rain Date 7/24 |

# TUESDAY SCHEDULE

| TIME | ACTIVITY | LOCATION |
|---|---|---|
| 8:00-8:50AM | Breakfast | Boardroom |
| 9:00-9:30AM | Off-Site Tour Transition | |
| 9:30-10:30AM | Off-Site Tour Round One | |
| 10:45-11:45AM | Off-Site Tour Round Two | |
| 12:00-12:30PM | Return to Beeches Transition | |
| 12:30-1:30PM | Lunch | Boardroom |
| 1:30-4:00PM | Design Strand | Turin Room |
| 4:00-5:00PM | Project Development | |
| 5:00-6:00PM | Dinner | Boardroom |
| 6:10-6:25PM | Keynote Transition to RFA | |
| 6:30-8:00PM | Keynote: Dr. Mario Livio<br>Introduced by Colonel Timothy J. Lawrence | RFA |
| 8:00-8:15PM | Transition to Beeches | |
| 8:15-10:00PM | • Project Development & Survey Reflections<br>• Open Swim– Weather Permitting<br>• Paranormal Investigation of the Rome Capital Theatre | |

# WEDNESDAY SCHEDULE

| TIME | ACTIVITY | LOCATION |
|---|---|---|
| 8:00-8:50AM | Breakfast | Boardroom |
| 9:00-10:00AM | Wake-Up Workshops | |
| 10:15-11:15PM | STEAM Workshops Round One | |
| 11:30-12:30PM | STEAM Workshops Round Two | Boardroom |
| 12:30-1:30PM | Lunch | Boardroom |
| 1:30-4:00PM | Design Strand | |
| 4:00-5:00PM | Project Development | |
| 5:00-6:00PM | Dinner | Boardroom |
| 6:10-6:25PM | Keynote Transition to RFA | |
| 6:30-8:30PM | Imagine The Impossible Triple Feature<br>Keynote: Deanne Bell<br>Special Edutainment provided by Mentalist Robert Channing & The Human Calculator, Scott Flansburg | RFA |
| 8:30-8:45PM | Transition to Beeches | |
| 8:45-10:00PM | Project Development | |

# THURSDAY SCHEDULE

| TIME | ACTIVITY | LOCATION |
|---|---|---|
| 8:00-8:50AM | Breakfast | Boardroom |
| 9:00-10:15AM | Off-Site Tour Transition-SYRACUSE | |
| 10:15-11:15AM | Off-Site Tour Round One | |
| 11:15-12:15PM | Off-Site Tour Round Two | |
| 12:30-1:30PM | Lunch | Biotech Accelerator |
| 1:30-2:30PM | AFTERNOON KEYNOTE:<br>Dr. Hilary McManus, LeMoyne College | Biotech Accelerator |
| 2:45-3:45PM | Return to Beeches Transition | |
| 4:00-5:00PM | Project Development | |
| 5:00-6:00PM | Dinner | Boardroom |
| 6:10-6:25PM | Keynote Transition to RFA | |
| 6:30-8:00PM | Keynote: Dr. Brandy Schillace | RFA |
| 8:00-8:15PM | Transition to Beeches | |
| 8:15-10:00PM | • Project Development/ Survey Reflections<br>• Open Swim– Weather Permitting<br>• Special Evening Workshop presented by Lead with Rhythm<br>• Paranormal Investigation of the Rome Capital Theatre | |

# FRIDAY SCHEDULE

| TIME | ACTIVITY | LOCATION |
|---|---|---|
| 8:00-8:50AM | Breakfast | Boardroom |
| 9:00-10:30AM | STEAM Workshops | |
| 10:30-11:00AM | • Gather Project Supplies<br>• Transition to RFA | |
| 11:00-12:30PM | • Ask the Experts<br>• Project Development | RFA |
| 12:30-1:30PM | Lunch | Boardroom |
| 1:00-3:00PM<br><br><br><br>1:00-5:00PM | College & Career Fair<br>Complete the Passport Challenge to be entered to win a great prize!<br><br>Final Project Wrap-up | RFA Lobby |
| 5:15-6:00PM | Closing Ceremonies Dress Rehearsal | RFA Auditorium |
| 6:15-6:30PM | Return to Beeches Transition | Boardroom |
| 6:30-7:30PM | BBQ Dinner | Tent |
| 7:30-8:30PM | SPECIAL PERFORMANCE:<br>Science Presentation by Kevin Delaney | Tent |
| 8:30-9:45PM | Pool Party followed by fireworks presented by Majestic Fireworks | Pool<br>Lawn |
| 10:00PM | STEAM Scholar Sign-In | The Inn |

# SATURDAY SCHEDULE

| TIME | ACTIVITY | LOCATION |
|---|---|---|
| 7:30-8:15AM | Breakfast | Inn |
| 8:30-8:45AM | Transition to RFA: Bring Luggage!<br>BUS PICK-UP AT THE BEECHES INN | Bus Pick-up at Inn |
| 9:00-11:00AM | STEAM Media Fair:<br>Present your final project to community members, families, educators, business leaders and experts! | RFA Cafeteria |
| 11:15-12:30PM | Closing Ceremonies:<br>• A look back at the week<br>• EPICS in IEEE Challenge Announcement<br>• Winners of STEAM Media Fair Announced<br>• Award Ceremony<br>• Performance by Gifted<br>• Closing Remarks | RFA Auditorium |
| 12:30-2:00PM | Reflections & Farewells<br>• Food Truck Rally Lunch<br>• Selfie-Station<br>• Live Music | |
| 2:00-3:00PM | STEAM Scholar Departure | |

## JOIN US NEXT YEAR FOR THE 4TH ANNUAL PROJECT FIBONACCI® STEAM CONFERENCE JULY 28-AUGUST 3, 2019*

*TENTATIVE DATES

# COLLEGE & CAREER FAIR EXHIBITORS

## FRIDAY, 1:00-3:00PM

Visit our growing list of exhibitors to be inspired on career paths and educational opportunities. Learn first-hand what experience and degree you would need to pursue to achieve your dreams. Complete mock-interviews and resume building workshops to help you succeed in your future endeavors. Fill out our College & Career Fair Passport for a chance to win a great prize!

## EXHIBITORS INCLUDE:

- Mohawk Valley Community College Aviation
- New York State Police
- PAR Government Systems, Corp.
- MA Polce Consulting
- Rochester Institute of Technology
- Utica College
- SUNY Polytechnic Institute
- Georgia Tech
- Western New England University
- Grand Canyon University
- Jervis Library
- Bartell Machinery
- BNY Mellon
- ANDRO Computational Solutions, LLC
- EOS/ESD Association, Inc.
- Munson-Williams-Proctor Art Institute PRATT
- Varflex
- Booz Allen Hamilton
- Air Force Research Laboratory
- St. John Fisher College

# SPECIAL THANK YOU

## DIAMOND+ SPONSORS

The Community Foundation of Herkimer & Oneida Counties, Inc.

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Internet connections provided by a donation through Northland Communications

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## SCHOOL SUPPORT

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Watkins Glen Central School District

Young Scholars

Herkimer BOCES VP-TECH

Mohawk Valley Community College STEP

Rome Free Academy

Albany Medical College STEP

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Adirondack Central School District

ADK P-TECH

Albany Leadership Charter School

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# SPECIAL THANK YOU

## ADOPT-A-SCHOLAR DONORS

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Stewart's Shops

# FUTURE EVENTS

## PROJECT FIBONACCI® STEAM CAMP
## AUGUST 13-AUGUST 24, 2018

The Project Fibonacci® Foundation is partnering with the Fulton City School District and LEGO Robotics for an intense two week summer camp for students entering 4th-6th grades. Campers will learn to fly small, unmanned aerial vehicles (drones), build and drive their own LEGO robots, learn how to code, practice the science and art of improvisation and communication, and more! Space is limited – for more information, email FultonSSAE@fulton.cnyric.org or visit goo.gl/yAhNyW.

## PROJECT FIBONACCI® BOOTH AT THE GREAT NYS FAIR
## AUGUST 22-SEPTEMBER 3, 2018

The Project Fibonacci® Foundation will be at the Great New York State Fair in Syracuse in the Science and Industry Building from 10 am – 10 pm daily. Come by, learn about the upcoming year's events and activities and show your support for STEAM education!


## PROJECT FIBONACCI® LIFESTREAM EVENT:
## FRIDAY, OCTOBER 19, 2018

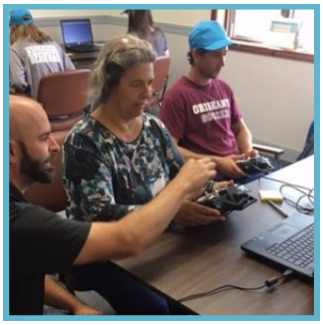
The Project Fibonacci® Foundation is partnering with AFRL, local universities and DARPA to present a day-long professional development event for educators and industry professionals focused on unique topics such as Quantum Ion Trapping, The Cyber Grand Challenge, Neural Development in Children, Brain-Computer Interface, Hire for Character-Train the Rest, and other similarly interesting presentations. The objective is to open the thought process regarding educational paths and approaches to careers by featuring cutting edge technologies and information not typically available. The EPICS in IEEE Smart City of STEAM Challenge winner shall be awarded at this event.

# FUTURE EVENTS

## PROJECT FIBONACCI® S/UAS DAYS: THE FUTURE & YOU!

### FALL 2018-SPRING 2019

The Project Fibonacci® Foundation will be holding a series of one-day events for the fourth year in a row, at both the Beeches Professional Campus and at area schools. Students will learn from experts in the small, unmanned aerial system (s/UAS, or "drone") industry and explore UAS technologies and their role in Central New York and the world beyond. Students will take part in hands-on learning which will include flight safety, aerodynamics, flight simulation, indoor and outdoor manual flight, programming and autonomous flight, photography and videography, and more! Contact Maria Smith at msmith@androcs.com for more information.



## PROJECT FIBONACCI® WOMEN & STEAM CONGRESS

### FRIDAY, MARCH 8, 2019

### INTERNATIONAL WOMEN'S DAY

The Project Fibonacci® Foundation is partnering with Utica College to present a day focused on women's leadership in the STEAM fields. This day-long event will feature workshops, roundtables and keynotes from some of the brightest shining lights in education, women's issues, and STEAM.

## 2019 PROJECT FIBONACCI® STEAM CONFERENCE

### SUNDAY, JULY 28– SATURDAY, AUGUST 3, 2019

The Fourth Annual Project Fibonacci® STEAM Conference! Hands-on, immersive, interactive, interdisciplinary learning that is team- and project-based, for students entering 10th grade through junior year of college or university. Apply online at ProjectFibonacci.org starting in October.

# SMART CITY OF STEAM INTERNATIONAL CHALLENGE

## EPICS IN IEEE

## MAKE A DIFFERENCE IMPACT YOUR COMMUNITY

The Project Fibonacci® Foundation, Inc. in coordination with the IEEE Engineering Projects in Community Service (EPICS), is hosting a unique, one-of-a-kind Smart City of STEAM Challenge. Current 2018 Project Fibonacci® STEAM Conference scholars, past scholars and students who have participated in previous Project Fibonacci programs are invited to look into the Smart Cities of the future and propose ways in which the future they envision can have a positive impact in our community today.

Past EPIC winners have proposed solar energy projects, air quality sensors and an educational program to help transition senior citizens into the digital world. By pairing with a community service organization, you will have the opportunity to implement your proposal and positively impact your community. IEEE will fund materials up to $10,000; if multiple proposals are selected the aggregate of all funded proposals is not to exceed $10,000. Project Fibonacci® will provide winning teams up to $1,000 in college scholarship funds per team member (up to $4,000)

We are seeking innovative artistic and design concepts that will influence the solution you propose. Your proposal should bring together aspects of STEM with art for a creative approach. Your proposal will be judged by a panel of experts who will consider factors such as:

- Did your proposal include a detailed list of materials required to implement your project?
- Did you demonstrate an understanding of the problem your proposal addresses?
- Can you develop and deliver your proposal in a timely manner?
- Will your nonprofit partner implement your project?
- What will you learn from implementing your proposal?

Project Fibonacci will provide you with mentors for the challenge and, if required, facilitate your partnership with a nonprofit community service organization.

For More Information: ProjectFibonacci.org

# IT TAKES A VILLAGE TO RAISE A STEAM COMMUNITY