



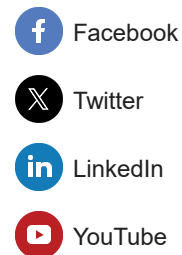
IEEE ULTRASONICS, FERROELECTRICS,
AND FREQUENCY CONTROL SOCIETY
— Newsletter —



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UFFC-S LEADERSHIP MESSAGES

[President's Message](#)

As I start my two-year term as UFFC-S President, I want to begin with thanks and congratulations. First, I must thank my predecessor, Paul Reynolds, for his extraordinary efforts during an unprecedented time. All the plans for his term were completely upended by the pandemic. He navigated completely uncharted territory, all the while guided by an unwavering sense of duty to both UFFC-S and its members, and the greater goal that our Society must be more welcoming, diverse, and equitable. Well done.



[READ MORE](#)

UFFC-S GOOD NEWS

Dr. Mark Schafer and Dr. Muyinatu Bell Elected to the 2022 Class of the AIMBE College of Fellows



Congratulations to Dr. Mark Schafer and Dr. Muyinatu Bell! The American Institute for Medical and Biological Engineering (AIMBE) has announced the election of Mark Schafer, Research Professor, School of Biomedical Engineering, Science, and Health Systems, Drexel University, and Dr. Muyinatu Bell, John C. Malone Assistant Professor, Dept. of Electrical and Computer

Engineering, Johns Hopkins University, to its College of Fellows. Dr. Schafer was elected to the AIMBE College of Fellows for outstanding contributions to medical ultrasound technology and regulation, thereby advancing the safety and efficacy of diagnostic ultrasound and therapy. Dr. Bell was elected to the AIMBE College of Fellows for pioneering contributions to the development of ultrasonic and photoacoustic medical imaging systems, including coherence-based beamforming, photoacoustic-guided surgery, and deep-learning applications.

[READ MORE](#)

Professor Jing-Feng Li elected as a Foreign Fellow of the Engineering Academy of Japan

Professor Jing-Feng, the UFFC-S Ferroelectrics Committee Member, was recently elected as a Foreign Fellow of The Engineering Academy of Japan. Prof. Jing-Feng Li received his Ph.D. from Tohoku University in 1991, and worked as an assistant professor and associate professor at the same university prior to joining Tsinghua University in 2022. Congratulations to Prof. Li for his well-deserved achievement!



Paul Dayton named Chair of the UNC-NCSU Joint Department of Biomedical Engineering

Paul Dayton, Ph.D., the William R. Kenan Distinguished Professor of Biomedical Engineering, has been named chair of the Joint UNC-NCSU Department of Biomedical Engineering. He had served as interim chair for more than two years. The announcement was made by Louis Martin-Vega, PhD, dean of the College of Engineering at NC State, Blossom Damania, PhD, vice dean for research at the UNC School of Medicine, and Terry Rhodes, Ph.D., dean of the UNC College of Arts & Sciences.



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Dr. Alfred Yu awarded 2021 NSERC E.W.R. Steacie Memorial Fellowship Award

In recognition of highly beneficial advancements to ultrasound technology, Dr. Alfred Yu, the T-UFFC EiC, is awarded a 2021 NSERC E.W.R. Steacie Award. Dr. Alfred Yu is guiding the direction of next-generation innovations in ultrasound technology. Yu's team at the University of Waterloo has developed and commercialized high frame rate ultrasound techniques that are now incorporated into the community screening program by physicians at the largest retirement living network in Ontario, to help care workers assess the cardiovascular health of elderly subjects.



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New Royal Academy of Engineering Fellows Announced in the Field of Ultrasonics

The Royal Academy's Fellowship represents the nation's best engineering researchers, innovators, entrepreneurs, and business and industry leaders. Election to the Academy is by invitation only; about 50 Fellows are elected each year through peer review and nominations made by existing Fellows. They are distinguished by the title Fellow of the Royal Academy of Engineering and the post-nominal FREng. In 2021, two of the Fellows elected were recognized for their contributions to the field of Ultrasonics. We took the opportunity to meet each of them to discuss their career and what the award means to them and their field.

Professor Margaret Lucas

Professor Margaret Lucas FEng, FRSE, is a Scottish mechanical engineer specializing in high-power ultrasonics, across applications including planetary drilling, oil and gas exploration, food processing and ultrasonic surgical devices. She is the Regius Chair of Civil Engineering and Mechanics and Professor of Ultrasonics in the James Watt School of Engineering.



[READ MORE](#)

Professor Bajram Zeqiri

Professor Bajram Zeqiri FEng, is a National Physical Laboratory (NPL) Fellow in Ultrasound and Head of Science for Medical and Marine Physics within the Medical, Marine, and Nuclear Department at NPL. He is an internationally recognized leader in the field of ultrasound metrology, specifically supporting its medical and industrial applications.



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UFFC-S TECHNICAL AREA UPDATES

Ultrasonics News

To improve the standardization, transparency, diversity, equity, and inclusion of the Ultrasonics Technical Program Committee (TPC) member selection, a committee co-chaired by Helen Mulvana and Jessica Liu Strohmman proposed a TPC Standardization Guidance document at the Ultrasonics Standing Committee (USSC) meeting on 26 September, 2021. The resulting call for new members was then launched with deadline of 28 February. The outcomes of this call and continued roll out of the standardization action plan will form part of the next USSC meeting 10 April 2022.

[READ MORE](#)

Ferroelectrics News

The first Ferroelectrics Committee meeting of this year took place on 19 January associated to the Electronic Materials and Applications (EMA) conference. About 45 members from all over the globe – including the UFFC-S President Mark Schafer and UFFC-S President-Elect Dragan Damjanovic - took part in this virtual meeting, which was the first led by our new Vice President Shujun Zhang (University of Wollongong, Australia). We are pleased to welcome the new FerroCom members:

- Hana Uršič Nemevšek (Jožef Stefan Institute, Slovenia)
- Michele Conroy (Imperial college London, UK)
- Fei Li (Xi'an Jiaotong University, China)
- Rattikorn Yimnirun (Vidyasirimedhi Institute of Science and Technology, Thailand)

[READ MORE](#)

Frequency Control News

The Frequency Control standing committee thanks the members who left the committee at the end of the 2021 term, for their service:

- Marina Gertsvolf (AdCom 2019-21)
- Dana Weinstein (IFCS 2020 Chair)
- Matteo Rinaldi (IFCS 2020 Chair)
- Kai Yang (Student Representative 2020-21)

And welcomes new members:

- Kristi Nguyen (University of Texas, Austin) as student representative
- Claudio Calosso (INRIM, Torino) elected AdCom member
- Laura Sinclair (NIST, Boulder) as TPC Chair 2023/24
- Nils Nemitz (National Institute of Information and Communications Technology, Tokyo) to the position of publication

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SYMPOSIA

IEEE UFFC-S IFCS



2022 Joint Conference of the European Frequency and Time Forum & The IEEE International Frequency Control Symposium

24-28 April 2022

Hybrid - Paris, France and Virtual

Important Dates:

Early Registration Ends - **15 March 2022**

Awards Nominations Deadline - **25 February 2022**

[2022 IFCS Website](#)

IEEE UFFC-S ISAF



2022 IEEE International Symposium on Applications of Ferroelectrics

27 June - 1 July 2022

Hybrid - Tours, France and Virtual

Important Dates:

Author Registration Deadline - **18 March 2022**

Proceedings Deadline - **27 June 2022**

[2022 ISAF Website](#)

2022 UFFC-S FerroSchool:

The [2022 IEEE UFFC-S Ferroelectrics School](#) will take place one week before the 2022 ISAF and will be held in person in Lyon Metropolitan Area, France from **20 - 24 June 2022**.

A shuttle from Lyon to Tours will be organized **Saturday 25 June** for FerroSchool participants who plan to attend **ISAF 2022**. More information on

the 2022 FerroSchool can be found [here](#).

ISAF 2026 Call for Proposals:

The Ferroelectrics Standing Committee (FerroCom) of the UFFC-S welcomes research groups to bid for the organization of the **2026 IEEE International Symposium on Applications of Ferroelectrics**, to be held in America. The deadline to submit proposals for the 2026 ISAF is **29 May 2022**. Proposal requirements and submissions information can be found [here](#).

IEEE UFFC-S IUS



2022 IEEE International Ultrasonics Symposium

10-13 October 2022

Hybrid - Venice, Italy and Virtual

Important Dates:

Abstract Submission Closes - **8 April 2022**

Notification to Authors - **13 June 2022**

[2022 IUS Website](#)

2022 IUS Call for Papers:

The [2022 IEEE International Ultrasonics Symposium](#) is soliciting papers for the upcoming hybrid conference that describe original work in the field of ultrasonics.

Submission deadline: **8 April 2022**

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EDUCATION

[Latin America Webinar Series](#)

Past Webinars:

The fifth webinar in the UFFC-S America Latina em/en Foco Webinar series from the IEEE UFFC-S Latin America Outreach Initiative was hosted on 9 December 2021. This webinar featured the topics, 'A Look at the History of Internationally Recognized Colombian Time Scale UTC (INM)' presented by Liz Catherine Hernandez Forero and 'Optical Clocks with Trapped Ions' presented by Milena Guevara Bertsch.

To view this webinar and listen to these talks, please click [here](#).

[Networking & Mentorship Workshops \(Session 2\)](#)



IEEE UFFC-S
PROFESSIONAL NETWORKING
& MENTORING PROGRAM

Session 2 - Workshops

The IEEE UFFC-S Professional Networking & Mentorship Program recently hosted three new workshops for their second session.

Previous Workshops:

Workshop 1: ['How to Apply for and Start a New Job'](#) presented by Alaina G. Levine on 21 November 2021.

Workshop 2: ['How to use Storytelling to Communicate with Clarity and Confidence'](#) presented by Ghina Halbi on 23 January 2022.

Workshop 3: ['Intro to the Business of AI: Framing a Business Problem as a Machine Learning Problem'](#) presented by Vinay Roy on 27 February 2022.

Upcoming Workshop:

Workshop 4:
['Building Resilience: Evidence-Based Practices for Mentors and Mentees'](#)

Dr. Diana Brecher.

26 March 2022 | 10 AM EDT (UTC -4:00)



[Register Here](#)

For more information on the UFFC-S Professional Networking & Mentorship Program, please click [here](#).

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[Virtual Lecturer Education Series](#)



UFFC-S Virtual Lecturer Education Series



Fei Li

5 April 2022 at 7 PM EDT



Joel B. Harley

3 May 2022 at 11 AM EDT

The IEEE UFFC-S Virtual Lecturer Education Series recently presented their first three lectures in late 2021 and early 2022. The series will continue with their fourth and fifth lectures being held on **5 April 2022** featuring Professor Fei Li and **3 May 2022** featuring Professor Joel B. Harley.

Previous Lectures:

Lecture 1: ['Cold Sintering of Functional Materials: A Path to a Possible Sustainable Future'](#) presented by Clive Randall on 7 December 2021.

Lecture 2: ['Precision Metrology with Photons, Phonons and Spins: Answering Major Unsolved Problems in Physics and Advancing Translational Science'](#) presented by Professor Michael Tobar on 1 February 2022.

Lecture 3: ['Advances in Development and Applications of Piezoelectric Materials'](#) presented by Professor Ahmad Safari, Rutgers University on 1 March 2022.

Upcoming Lectures:

Lecture 4 Topic:

[Recent Developments in Relaxor-PT Piezoelectric Ceramics and Crystals](#)

Professor Fei Li, Xi'an Jiaotong University

5 April 2022 at 7 PM EDT (UTC -4:00)



[Register Here](#)

Lecture 5 Topic:

[Physics-Informed Guided Wave Ultrasonic Machine Learning](#)

Professor Joel B. Harley, University of Florida

3 May 2022 at 11 AM EDT (UTC -4:00)



[Register Here](#)

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PUBLICATIONS

IEEE TRANSACTIONS ON
**ULTRASONICS, FERROELECTRICS,
AND FREQUENCY CONTROL**

[View the T-UFFC Current Issue](#)

Celebrating Peter Lewin and Welcoming Alfred Yu as the 2022 Editor-in-Chief

UFFC-S celebrates the accomplishments of Professor Peter Lewin as Editor-in-Chief of the [IEEE Transactions on Ultrasonics, Ferroelectrics, and](#)

[Frequency Control \(T-UFFC\)](#) and welcomes Professor Alfred Yu as he takes on this very important role in the Society. Don't miss [Alfred Yu's first editorial as E-in-C for T-UFFC](#) wherein he reveals many initiatives for 2022 such as:

- Showcasing multidisciplinary research
- Welcoming submissions on research methods and protocols
- Promoting open science

Be a part of the nearly seven-decade legacy of the Transactions on Ultrasonics, Ferroelectrics and Frequency Control. [Browse the latest issues](#) and [submit findings](#) of interest to the T-UFFC readership.

[READ MORE](#)

A Brief Update from the T-UFFC Editor-in-Chief

Contributed By: Alfred Yu, T-UFFC Editor-in-Chief

It is my tremendous honor to succeed Prof. Peter Lewin as the next Editor-in-Chief of the IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control (T-UFFC). The UFFC-S Editorial Board and I are deeply thankful for Peter's contributions to our journal. Peter, as a distinguished scholar in ultrasound exosimetry, has been a knowledgeable leader for the UFFC-S TRANSACTIONS in the past three years. I am also grateful for the support that Peter has provided to me during the leadership transition process.



[READ MORE](#)

Announcement: New Paper Submission Categories Introduced

The [IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control \(T-UFFC\)](#) is pleased to be introducing reforms to our paper submission categories to better serve the members of the UFFC-S. Prospective authors are now encouraged to submit manuscripts in the following categories:

- **Original Research:** Regular full-length paper that reports a new scientific or technological advance.
- **Spotlight:** Theme-based research paper that is targeted for an upcoming T-UFFC spotlight issue.
- **Methods and Concepts:** Tutorial paper that pedagogically describes the technical details of important foundational concepts, lab procedures, or fabrication protocols.
- **Review:** Full-length educational paper that curates latest findings and trends on a particular topic.
- **Perspective:** Mini review paper (6-8 typeset pages, including references) on an emerging research topic.

[READ MORE](#)

T-UFFC Call for Papers: Special Issue on Recent Advances in Piezoelectric Materials for Electromechanical Transducer Applications

To celebrate the 100th anniversary of the discovery of Ferroelectrics, the [IEEE Transaction on Ultrasonic, Ferroelectrics, and Frequency Control](#) plans to launch a special issue focusing on the piezoelectricity of ferroelectrics and its ever-expanding applications.

Submission deadline: **31 March 2022**

[READ MORE](#)

T-UFFC Call for Papers: Spotlight Issue on Recent Advances in Medical Ultrasound Array Design

IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control is organizing a spotlight issue entitled [Recent Advances in Medical Ultrasound Array Design](#) to provide a timely platform for rapid dissemination of new findings in this area. The spotlight issue will serve to create a library of peer-reviewed literature describing the latest and prospective advances in ultrasound array design.

Submission deadline: **30 April 2022**

[READ MORE](#)

T-UFFC Call for Papers: Spotlight Issue on Advances in Ultrasound Exposimetry

To celebrate the 30th anniversary, IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control plans to launch a special issue focusing on [Advances in Ultrasound Exposimetry](#). Applications include diagnostic and therapeutic ultrasound, both piezoelectric and fiber optic hydrophones, and most recently developed optical calibration methods. We believe the issue will provide a new "landmark-issue" in the field of ultrasound metrology for years to come. In this context we envision the issue would benefit by including review papers encapsulating the current state of the art in the field of pressure amplitude based and light intensity-based measurement sensors.

Submission deadline: **31 July 2022**

[READ MORE](#)

New Workshops: Peer Reviewer Training with T-UFFC EiC Alfred Yu

Are you interested in assessing the merit of latest research advances in the UFFC-S community and in upholding the quality of research publications? If so, you should consider serving as a peer reviewer for the IEEE UFFC-S Transactions. Join this workshop with Alfred Yu, IEEE T-UFFC Editor-in-Chief, to learn how to prepare professional review critiques.

Are you already a reviewer but wanted to find out more about the quality expectations for peer review critiques? If so, you should also join this workshop!

We welcome prospective reviewers at different career stages to participate. Reviewers should be active researchers in the field. Graduate students may serve if they are close to Ph.D. graduation. Participants who have successfully completed this workshop will be listed as potential reviewers for the IEEE UFFC-S Transactions.

Event Times:

23 March 2022

23 March 2022

11 AM EDT (UTC -4:00)

[Register Here](#)

10 PM EDT (UTC -4:00)

[Register Here](#)

[READ MORE](#)

IEEE Open Journal of
***Ultrasonics, Ferroelectrics,
and Frequency Control***

[View the OJ-UFFC Current Issue](#)

OJ-UFFC Call for Papers: Special Issue on Micromachined Ultrasonic Transducers

The IEEE Open Journal on Ultrasonics, Ferroelectrics, and Frequency Control (OJ-UFFC) invites submission of manuscripts on [Micromachined Ultrasonic Transducers](#) that fall within the scope of the UFFC-S. This special issue seeks contributions from authors who are engaged in any aspect of micromachined transducers design, implementation, and use.

Submission deadline: **31 March 2022**

[READ MORE](#)

OJ-UFFC Call for Papers: Special Issue on Super- Resolution Ultrasound Imaging

The IEEE Open Journal on Ultrasonics, Ferroelectrics, and Frequency Control (OJ-UFFC) invites submissions of manuscripts on [Super-resolution Ultrasound Imaging](#) that fall within the scope of the UFFC-S. This special issue seeks contributions from authors who are engaged in any aspect of super-resolution imaging, design, implementation, and use.

Submission deadline: **31 May 2022**

[READ MORE](#)

[View the JLT Current Issue](#)

JLT Call for Papers: Special Issue on Integrated Photonics for Quantum Applications

This JLT Special Issue covers topics in the field of [Integrated Photonics for Emerging Quantum Applications](#) such as communications, computing, networking, sensing, and metrology and aims to provide researchers and students with the newest developments in these rapidly evolving fields. We welcome submissions that highlight recent advancements in photonic integrated circuits and/or their integration into systems and sub-systems for quantum applications.

Submission deadline: **31 March 2022**

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AWARDS

Elevated Fellows as of January 2022

Congratulations to the [2022 UFFC-S Class of IEEE Fellows](#). Thank you for your many contributions to IEEE UFFC-S.

Fellows Elevated by UFFC-S:

Clive Randall

Citation: "For contributions to the formulation, processing, and characterization of electroceramics"



Elisa Konofagou

Citation: "For contributions to ultrasound for cardiovascular and cancer diagnosis, neuromodulation and brain drug delivery"



F. Levent Degertekin

Citation: "For contributions to micromachined ultrasonic and optomechanical transducers and systems"



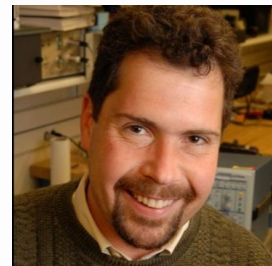
Gregg Trahey

Citation: "For contributions to speckle tracking and acoustic radiation force impulse imaging in medical ultrasound"



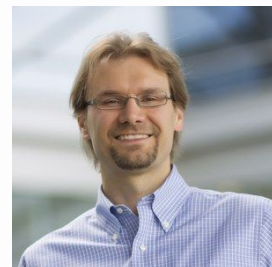
John Kitching

Citation: "For contribution to chip-scale atomic clock and atomic magnetometer"



Paul Dayton

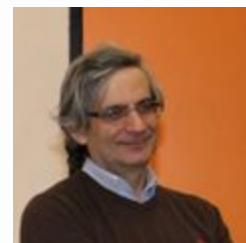
Citation: "For contributions to contrast agents and contrast-enhanced ultrasound in medical diagnostics and therapeutics"



UFFC-S Members Elevated by other IEEE Entities:

Tommaso Isernia

Citation: "For contributions on antennas synthesis and inverse scattering problems"



To learn more about the IEEE Fellows of the UFFC-S, please visit the [IEEE Fellows](#) page.

STUDENT MEMBERSHIP

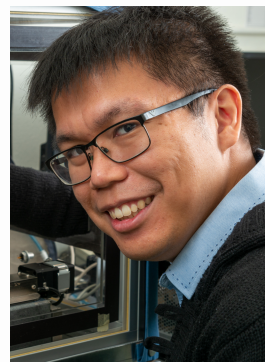
New Student Representatives for 2022

Meet the new IEEE UFFC-S student representatives who will be serving in 2022 and 2023!

Yashwanth Nanda Kumar, a Ph.D. student with the Center for Industrial and Medical Ultrasound at the University of Washington, was appointed the Junior Student Representative for Ultrasonics. His research interests are in the application of histotripsy for treating benign prostatic hyperplasia.



Ralph Bulanadi, a Ph.D. student in the Paruch Group at the University of Geneva, was appointed the Junior Student Representative for Ferroelectrics. Ralph studies the dynamics of switching in ferroelectric domains via scanning probe techniques. He credits his positive experiences at past UFFC-S conferences to “the amazing work done by past Representatives, like Kerisha Williams and Stuart Burns, along with the current Senior Representative Federica Benes,” and says: “I hope to ensure the next generation of students can experience the same!”



Kristi Nguyen, a Ph.D. student in electrical and computer engineering at the University of Texas, was appointed the Junior Student Representative for Frequency Control. Her research interests include high-performance piezoelectric resonators for power electronic applications, having previously studied the trade-offs in nanophotonics and distortion analysis for time-varying antennas.

Yashwanth, Ralph, and Kristi join the current senior student representatives: Maryam Basij (Ultrasonics), Federica Benes (Ferroelectrics), and Etienne Batori (Frequency Control). The team looks forward to an exciting year of conferences, student initiatives, and more.

Dr. Andreja Erbes, the UFFC-S student advisor, noted that while “this year will be challenging in terms of organization as the UFFC-S Symposia are being held in a ‘hybrid’ format,” the student representatives are “working hard to bring some great activities for all the students (for online and on-site attendees). We look forward to meeting you all this year!”

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UFFC-S UPDATES

Ongoing Calls for Volunteers



UFFC-S is seeking dedicated volunteers to offer their time and service on positions within the IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society. Individuals interested in becoming more involved in the UFFC-S, please see the full list of [open volunteer positions here](#).

Volunteer applicants must fill out a [UFFC-S Volunteer Application](#), this form can also be found on the UFFC-S Volunteer Opportunities page linked above.

If you are a committee chair and would like to submit an open volunteer application to be posted on the Volunteer Opportunities page, please click [here](#).

For more information, please contact the [UFFC-S Operations Manager](#).

KEEP IN TOUCH

Please Tell Us Your Stories!

Please contact any of the members of the UFFC-S newsletter team if you have news to share with the UFFC-S membership. We will get news onto the website as it occurs and include selected items in the quarterly highlight newsletters. Finally, in addition to the usual notices and updates we share, we're keen to promote good news and successes from across our society. If you or those you work with have received an award, successfully defended their Ph.D. thesis, secured funding for an exciting new initiative, please get in touch! You can see all our news items on our web pages or by following our social media accounts.



[Arun Thittai](#), Newsletter Editor-in-Chief

[Derek Chan](#), Newsletter Deputy-Editor-in-Chief

[Erdal Oruklu](#), Ultrasonics Editor

[Julia Glaum](#), Ferroelectrics Editor

[Wei-Chang Li](#), Frequency Control Editor

[Helen Mulvana](#), Web Editor-in-Chief

[Shelly Conroy](#), Publicity Chair

Social Media

We're very keen to build our social media presence both to promote our society and to share news items with our community. Please add our pages to your networks and promote our posts so we can continue to reach as wide an audience as possible.

Whitelist UFFC-S Email

Please remember to whitelist the UFFC-S Administrator email address, uffc-admin@conferencecatalysts.com, to ensure that you are receiving the UFFC-S administrative email communication. For more information on how to whitelist an email address, click [here](#).



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