

## Papers and Journals 2021

### [Band Structure Critical Point Energy in Germanium – Tin Alloys with High Tin Contents](#)

*Author: Dominic Imbrenda*

Applied Physics Letters (APL) | October 2021

### **Command and Control Across Air, Space and Cyber Domains at Speed and Scale for Dynamic Targets**

*Authors: Jinhong K Guo, Jennifer Lautenschlager, David Van Brackle, Val Champagne*

26th International Command and Control Research and Technology Symposium | October 25-29

### [A Comparison of Common Video Game Heads-Up-Displays versus Real-World Designs for the Purpose of Target Localization and Identification](#)

*Authors: Gina Notaro, Raquel Galvan-Garza, Jim Allen, Matthias Ziegler, et al*

2021 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct) | October

### [The Effect of Noisy Galvanic Vestibular Stimulation on Learning of Functional Mobility and Manual Control Nulling Sensorimotor Tasks](#)

*Author: Raquel Galvan-Garza*

Frontiers Neuroscience Journal

### [Implementation of Decentralized Reinforcement Learning-Based Multi-Quadrotor Flocking](#)

*Authors: Donald J Bucci, Christian Speck, et al*

IEEE Access | November

### [On Distributed Online Convex Optimization with Sublinear Dynamic Regret and Fit](#)

*Author: Donald J Bucci*

Asilomar Conference on Signals, Systems, and Computers | November 1

### [Part-X: A Family of Stochastic Algorithms for Search-based Test Generation with Probabilistic Guarantees](#)

*Author: Mauricio Castillo-Effen*

Computing Research Repository (CoRR) | October 20

### **The Path Towards Trustworthy AI and Autonomy**

*Author: Mauricio Castillo-Effen*

NVIDIA's GTC 2021 Conference | November 9

### **The Path Towards Trustworthy AI and Autonomy**

*Author: Mauricio Castillo-Effen*

Workshop On Safe Autonomy and Practical AI | November 12

### **Proceedings of the Workshop on Artificial Intelligence Safety 2021**

*Author: Mauricio Castillo-Effen, et al*

The Thirtieth International Joint Conference on Artificial Intelligence (IJCAI 2021) | August

### [Programmatically Identifying Cognitive Biases Present in Software Development](#)

*Authors: Amanda Kraft, Matthew Widjaja, Trevor Sands, Brad Galego*

SciPy Conference 2021 (virtual)

### [Shared-ACS Binary Code Pair Search Exploiting Coupled Symparity](#)

*Author: Jon Russo*

IEEE Transactions on Aerospace and Electronic Systems (T-AES) journal | March

### **Shared-Autocorrelation Binary Code Pair Search Exploiting Coupled Parity**

*Author: Jon Russo*

IEEE 2020 Conference on Information Sciences and Systems | June 1

### **Soft Actor-Critic Solution to a Security Game With Deception and an Informant**

*Authors: Jinhong K Guo, Martin Hofmann, Carter Veldhuizen, Valerie Champagne*

26th International Command and Control Research and Technology Symposium | October 25-29

[Towards Assurance Case Evidence Generation Through Search-based Testing](#)

*Author: Mauricio Castillo-Effen, et al*

Proceedings of the 2021 International Conference on Embedded Software (EMSOFT '21) | October 8-15

[Unknown Signal Detection in Interference and Noise Using Hidden Markov Models](#)

*Authors: Gabe Ford and Ben Foster*

IEEE Statistical Signal Processing Workshop 2021 | July 11-14

[US versus China: Promoting 'Constructive Competition' to Avoid 'Destructive Competition' Chapter 6. An Approach to Managing the "Complex Adaptive System" That Is Peer Competition](#)

*Author: Mark Hoffman*

SMA Perspectives Emergent Issues for US National Security | May

**Wearable Brain and Body Sensing for Multimodal Assessment of Cognitive Workload and Training**

*Authors: Amanda Kraft and Matthias Ziegler*

Human Factors & Medicine Research Symposium | October

## Papers and Journals 2020

**Allocation and Scheduling in a Multi-domain, Dynamic Environment**

*Authors: Katherine Guo, Jennifer Lautenschlager, VanB, Valerie Champagne, Luis Asencios Reynoso*

AFRL/RI's Autonomous Command and Control Magazine | October

**Chiplet Ecosystem for Mil-Aero Applications**

*Authors: Patrick Zarnas, Ben Sampson, Lezly Murphy, Rick Stevens*

GOMACTech Conference 2020 | March 16-19

[Deinterleaving Pulse Trains via Interleaved Markov Process Estimation](#)

*Authors: Gabriel Ford, Benjamin Foster, Stephen Braun*

2020 IEEE Radar Conference | September 21

**Galvanic Vestibular Stimulation Flyer**

*Authors: Raquel Galvan, Lisa Baraniecki*

Demonstration event at the Lockheed Martin Center for Innovation | March 4

**Hardware Architecture Resilience by Design**

*Authors: Brian Uhlhorn, Harsha Torke*

GOMACTech Conference 2020

[In vitro Prototyping and Rapid Optimization of Biosynthetic Enzymes for Cell Design](#)

*Authors: Michael Krein, Dave Coar*

Nature Chemical Biology

[Long Low-PSL Binary Codes by Multi-Thread Evolutionary Search](#)

*Author: Jon Russo*

2020 IEEE International Radar Conference | April 27 – May 1

[Minesweeper: A Novel and Fast Ordered-Statistic CFAR Algorithm](#)

*Authors: Carl Colena, Michael Russell, Stephen Braun*

2020 IEEE High Performance Extreme Computing Conference (HPEC '20) | September 21

[On Distributed Online Convex Optimization with Sublinear Dynamic Regret and Fit](#)

*Author: DJ Bucci*

54th Annual Conference on Information Sciences and Systems IEEE | March

[Robust Dynamic Spectrum Access in Adversarial Environments](#)

*Authors: Timothy Hu, Joseph Palombo, Michael Liston, DJ Bucci*

2020 IEEE International Conference on Communications (ICC) | June 7

[Robust Stochastic Bandit Algorithms under Probabilistic Unbounded Adversarial Attack](#)

*Authors: DJ Bucci, Timothy Hu, Joseph Palombo, Michael Liston*  
Thirty-Fourth AAAI Conference on Artificial Intelligence | February 7-10

**[Systems Engineering of Autonomy: Frameworks for MUM-T Architecture](#)**

*Author: Jerry Franke*  
Defense Science Information Analysis Center's Summer Edition

**[Wind Measurement and Simulation Techniques in Multi-Rotor Small Unmanned Aerial Vehicles](#)**

*Authors: DJ Bucci, Gabe Ford*  
IEEE Access | March

## Papers and Journals 2019

**[Bright Future for Integrated Magnetics](#)**

*Authors: Dev Palmer, David Kirkwood, Steve Gross, Michael Steer, Harvey S. Newman, Scooter Johnson*  
IEEE Microwave Magazine | June

**[Communication Network Topology Inference Via Transfer Entropy](#)**

*Author: Donald J. Bucci*  
IEEE Transactions on Network Science and Engineering | January

**[Decentralized Formation Coordination of Multiple Quadcopters Under Communication constraints](#)**

*Authors: Donald J. Bucci, Pramod Abichandani, Kyle Levin*  
IEEE International Conference on Robotics and Automation (ICRA) | May 24

**[K-medoids Clustering of Data Sequences with Composite Distributions](#)**

*Authors: Donald J. Bucci, Tiexing Wang, Qunwei Li, Yingbin Liang, Biao Chen, Pramod K. Varshney*  
IEEE Transactions on Signal Processing, vol. 67, no. 8, pp. 2093–2106 | April

**[Maximal 8×8 Binary MOCS Cliques from Scratch](#)**

*Author: Jon Russo*  
2019 IEEE Radar Conference | April 22-26

**[Multi-Target Tracking with an Event-Based Vision Sensor and a Partial-Updated GMPHD Filter](#)**

*Author: Ben Foster*  
Imaging Science and Technology (IS&T) Electronic Imaging 2019 | January 13-18

**[Profiles, Proxies, and Assumptions: Decentralized, Communications-Resilient Planning, Allocation, and Scheduling](#)**

*Authors: Brian Kettler, Katherine Guo, Martin Hofmann, Valerie Champagne, Jennifer Lautenschlager, Luis Asencios*  
Thirty-First Annual Conference on Innovative Applications of Artificial Intelligence (IAAI-19) | January 29-31

**[Resolving Events Through Multi-Intelligence Fusion](#)**

*Authors: Jay Ritchie & Phil DiBona*  
Journal of DoD Research and Engineering, Vol 2, Issue 1 | February

**[RF Active Optical Cable \(AOC\) Leveraging the AIM Photonics RF Analog KTMA](#)**

*Author: Michael Hoff*  
2018 ARM National Member Meeting | March 20-21

**[Trust-Driven Privacy in Human-Robot Interactions](#)**

*Author: Tina Setter, Matthew Hale, Kingsley Fregene*  
American Control Conference (ACC) | July 12