

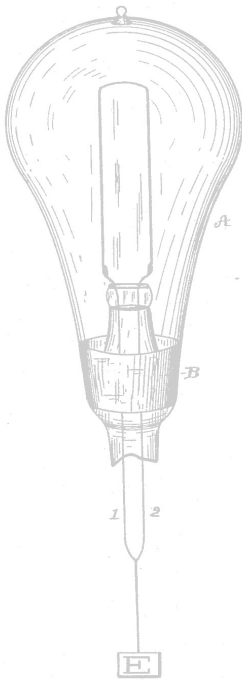


*Annual  
Inventor  
Recognition  
Ceremony*

**To honor Fermilab  
Inventors, Creators  
& Entrepreneurs**

**A Virtual Celebration**

**February 24, 2022  
1:30 p.m. - 3:00 p.m.**



## Agenda

**Welcome & 2021 Highlights**

**Cherri J. Schmidt**  
*Head, Office of Partnerships  
and Technology Transfer*

**Message from  
the Director**

**Nigel Lockyer**  
*Director*

**Messages from the  
Department of Energy**

**Whitney Begner**  
*Deputy Site Office Manager, FSO*

**James Siegrist**  
*Associate Director of Science for High Energy Physics*

**Vanessa Chan**  
*Chief Commercialization Officer, DOE  
Director, Office of Technology Transitions*

## Innovator Recognition and Awards Presentations

### Society of Hispanic Professional Engineers

**Jeny Teheran**  
*2021 Servant Leadership Award*

### Polsky Center, University of Chicago

**Shaorui Li**  
*2021 Lab Innovation Fellowship*

### Cryogenic Society of America

**Benjamin Hansen**  
*Excellence in Cryogenics Operations and Support*

### Cryogenic Engineering Conference

**Jay Theilacker**  
*2021 Samuel C. Collins Award*

### American Physical Society Division of Particles and Fields

**Juan Estrada**  
*American Physical Society Instrumentation Award*

### Association for Computing Machinery

**William Boroski, Stephen Kent, Brian Yanny**  
*2021 ACM SIGMOD Systems Award*

### 2020 Patent Awardees Special Recognition

**Mohamed Hassan**  
**Donato Passarelli**

Automatic tuning of dressed multicell  
cavities using pressurized balloons  
*U.S. Patent #10,645,793, Issued May 5, 2020*

## 2021 Patent Awardees

**Sujit Bidhar**

Methods and systems for electrospinning using low power voltage converter  
*U.S. Patent #11,174,570, Issued November 16, 2021*

**Aaron Sauers  
 Robert Kephart**

Method and system for in situ cross-linking of materials to produce three-dimensional features via electron beams from mobile accelerators  
*U.S. Patent #11,123,121, Issued September 21, 2021*

**Tom Zimmerman  
 Grzegorz Deptuch  
 Farah Fahim**

Compact, low power, high resolution, ADC per pixel, for large area pixel detectors  
*U.S. Patent #11,108,981, Issued August 31, 2021*

**Lance Cooley**

Longitudinally joined superconducting resonating cavities  
*U.S. Patent #11,071,194, Issued July 20, 2021*

**Thomas Kroc  
 Robert Kephart**

High energy X-ray source and detector for wellbore inspection  
*U.S. Patent #11,054,544, Issued July 6, 2021*

**Farah Fahim  
 Grzegorz Deptuch**

Edgeless large area camera system  
*U.S. Patent #11,012,642, Issued May 18, 2021*

**Robert Kephart**

Compact SRF based accelerator  
*U.S. Patent #10,993,310, Issued April 27, 2021*

**Daniil Frolov  
 Akim Babenko**

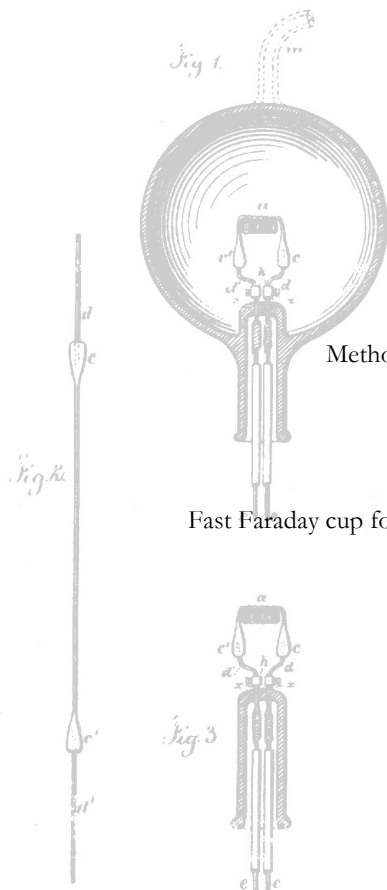
Method and system for microwave mixer phase response measurement  
*U.S. Patent #10,962,587, Issued March 30, 2021*

**Ding Sun  
 Alexander Shemyakin**

Fast Faraday cup for measuring longitudinal distribution of particle charge density in nonrelativistic beams  
*U.S. Patent #10,962,587, Issued March 30, 2021*

**Daniil Frolov  
 Gregory Saewert**

High speed driver for particle beam deflector  
*U.S. Patent #10,892,591, Issued January 12, 2021*



## 2021 Invention and Software Disclosures

- Shreyas Bhat
- Dennis Box
- Gustavo Cancelo
- Benjamin Cohen
- Bruno Coimbra
- Vito Di Benedetto
- David Dykstra
- Juan Estrada
- Lisa Goodenough
- Chris Green
- Mohamed Hassan
- Hyunwoo Kim
- Kyle Knoepfel
- Thomas Kroc
- Andrew Lathrop
- Shaorui Li
- Marco Mambelli
- Marc Mengel
- Guillermo Fernandez Moroni
- Brian Nord
- Andrew Norman
- Adam Olson
- Kevin Retzke
- Patrick Riehecky
- Aaron Sauers
- Prasanth Shyamsundar
- Gabriel Spahn
- Leandro Stefanazzi
- Chris Stoughton
- Javier Tiffenberg
- Steven Timm
- Ken Treptow
- Brandon White
- Neal Wilcer
- Xingchen Xu

## Special Presentation

### Honoring Nigel Lockyer, Director, Fermilab



U.S. Department of Energy's Fermi National Accelerator Laboratory Director Nigel Lockyer has received one of the highest honors handed out by the United Kingdom. In her New Year's honors list, Her Majesty The Queen named Lockyer Officer of the Order of the British Empire, one of the highest ranks in the nation's order of chivalry.

Every year the honors list recognizes people from the UK and the Commonwealth for their extraordinary contributions to society. This year's list includes actor Daniel Craig, famous for playing James Bond, and tennis player Emma Raducanu, who won the 2021 US Open.

Lockyer, who was born in Scotland and raised in Canada, was recognized for his "services to science and UK/US relations." Appointed director of Fermilab in 2013, Lockyer has spearheaded the lab's efforts to host the international Deep Underground Neutrino Experiment. More than 1,400 scientists and engineers from over 30 countries are working on DUNE.

Nigel also received the Distinguished Career Service Award from the Department of Energy's Office of Science for his dedication and service to the DOE and the nation. The award recognizes Lockyer's eight years at Fermilab and his work in facilitating international collaboration within the worldwide high-energy physics community.

The Office of Partnerships and Technology Transfer graciously thanks everyone who helped contribute to this year's event.

Please contact [OPTT@fnal.gov](mailto:OPTT@fnal.gov) with your 2021 invention disclosures.