

# The Beam Pulse

The latest highlights in Accelerator Directorate

## News for AD

The Program and Project Support Office (PPSO) is pleased to share the first edition of *The Beam Pulse*, a monthly newsletter designed to inform employees of the Accelerator Directorate (AD), across the Footprint and beyond!

Thanks go out to everyone who submitted their suggestions for the newsletter name; the response was overwhelming! Many of you are excited to have this publication as a resource going forward. This newsletter has been in the AD plan for several years now, at least since the release and analysis of the 2019 labwide climate survey results. The PPSO was established in part to focus directly on delivering support requested by AD personnel in a way that is organized, engaging and sustainable.

In the coming issues of this newsletter expect fresh and thought-provoking content to help you stay connected to your colleagues, understand your role in delivering on the AD and Fermilab mission and encourage you to seek out greater context for your day-to-day activities. The PPSO takes pride in helping to foster a culture of inclusion and celebration of each talented and hard-working contributor in AD. To that end, please reach out to any one of the PPSO staff to share questions, comments and suggestions for how to help you and your team feel seen, heard and supported.

Alyssa Miller  
Technical Editor

Noel Wiedman  
PPSO Group Leader

Richard Wallace  
Workforce Development Liaison

Find us online: [ad.fnal.gov/hq/PPSO](https://ad.fnal.gov/hq/PPSO)

## Inside this issue:

AD EPRA winners • A word from Safety • The Machine Report • Know Your Organization! • Newsletter naming stats

... and some of your photos from around the lab!

**Nov 4** - Flannel Fridays begin!

**Nov 16** - Timecards due early

10a

**Nov 18** - Collegiate Pipeline Program

Breakfast with students: 9:00a, WH 2nd Floor Crossover  
Internship experience panel: 1:00p, WH Curia II & Zoom

**Nov 22** - Seminar: Summary of the Snowmass '21 Accelerator Frontier

3:30p, WH One West & Zoom

**Nov 24** - Thanksgiving Day

Lab holiday

**Nov 25** - Native American Heritage Day

Lab holiday

**Dec 4** - Ask A Scientist

1:00p, Zoom

**AD Operations Meetings**

M&W, 9:00a, XGW Huddle & Zoom  
F, 9:00a, WH One West

**Director's Coffee Break**

M-F, 3:30p, WH 2nd Floor Crossover

**Wine & cheese**

Fridays, 3:30p, WH 2nd Floor Crossover



# Exceptional Performance Recognition Awards

Every year a group of dedicated employees are recognized with Exceptional Performance Recognition Awards (EPRAs) for their outstanding contributions to Fermilab resulting from innovation, discovery, extraordinary effort, and/or significant cost reduction in scientific, technical, or administrative activities. Employees are nominated by their directorate and division leadership. These are the 2022 AD winners, who were awarded in September, and a brief description of their contributions.

**Lila Anderson**

For exceptional performance by establishing effective search committee tools and processes for hiring in the AD Controls Department and ACORN Project.

**Salah Chaurize**

Improved orbit control of Booster.

**John DeVoy**

For exceptional performance leading the effort to transition the control system to an open source database.

**Marilyn Franck**

In recognition of her dedication and outstanding work ethic in keeping Accelerator Division running smoothly during a time of reduced administrative workforce in FY22.

**Sudeshna Ganguly**

For outstanding performance as Run Coordinator of the Fermilab Accelerator Complex in the 2022-2023 run, meeting beam delivery goals under challenging conditions.

**Nick Gurley**

For exceptional contribution in the design and improvement of a power supply database.

**Michael Henry**

For outstanding contribution in design and construction of the prototype LBNF horn power supply test.

**Aisha Ibrahim**

For leadership in the lab's engineering and equity, diversity, and inclusion programs.

**Jonathan Jarvis**

For leading the successful proof of principle demonstration of Optical Stochastic Cooling at IOTA.

**Patrick Karns**

For outstanding performance as Run Coordinator of the Fermilab Accelerator Complex in the 2022-2023 run, meeting beam delivery goals under challenging conditions.

**Matt Kufer**

For exceptional contribution in the design and implementation of the QCD, a novel power supply addition to aid in SC magnet training.

**Kathrine Laureto**

For leadership on the DOE Visiting Faculty Program committee and contributions to the VetTech Internship and VALOR Apprenticeship Program.

**Shoua Moua**

Elimination of sparks in Linac klystrons with improved purification of R-Temp oil.

**Tony Parker**

For outstanding effort in contributing to the NX and Teamcenter upgrade.

**Howard Pfeffer**

For exceptional contribution in the design and implementation of the QCD, a novel power supply addition to aid in SC magnet training.

**Eric Pirtle**

For outstanding effort in contributing to the NX and Teamcenter upgrade.

**Aleksandr Romanov**

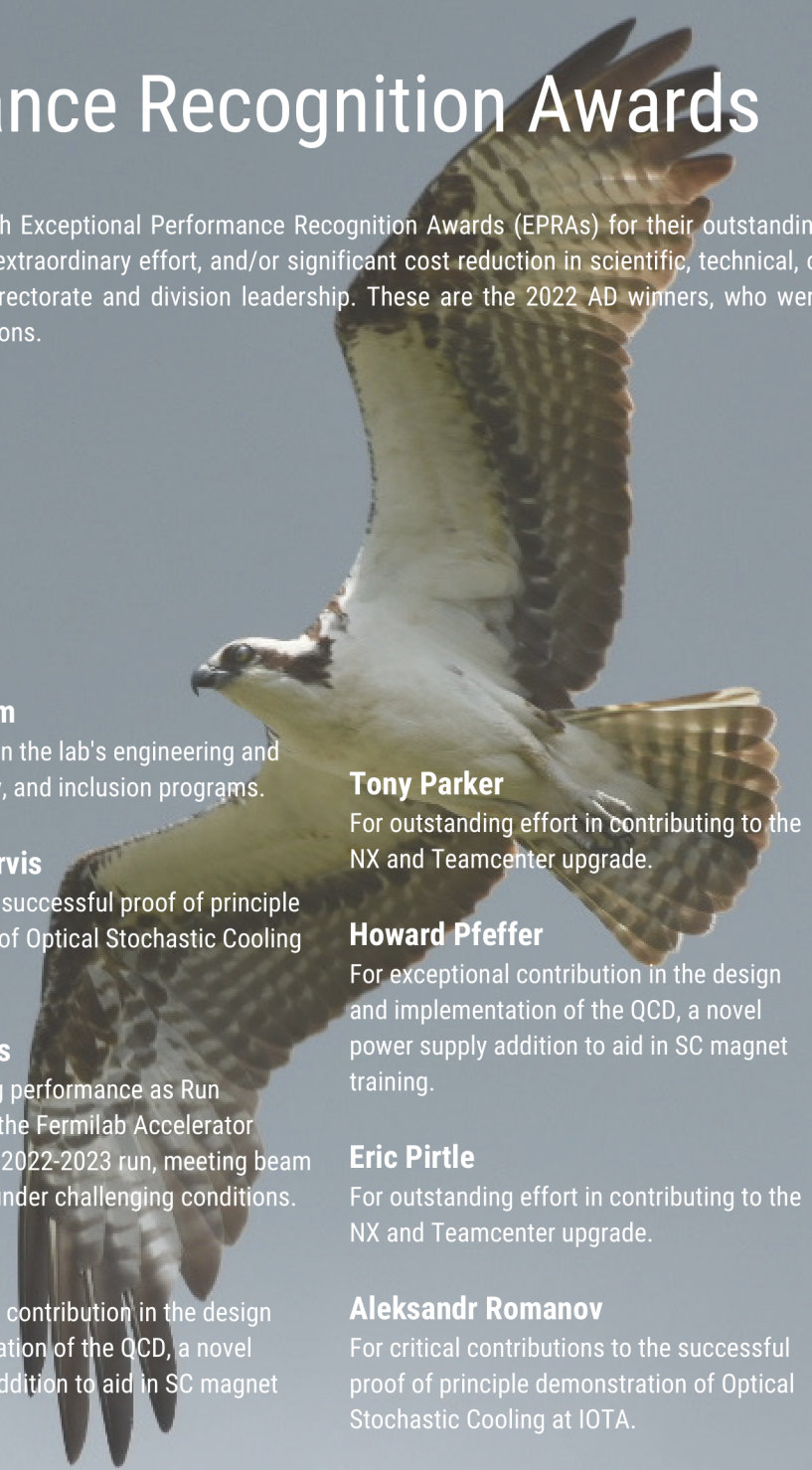
For critical contributions to the successful proof of principle demonstration of Optical Stochastic Cooling at IOTA.

**Kelliann Rubrecht**

For exceptional performance in her duties as the Accelerator Operators Training Committee lead.

**Donovan Tooke**

For innovation in redesigning the training program for Accelerator Operators and active participation in lab outreach programs.





# A word from Safety

## *Buying electrical equipment? NRTL is the rule!*

NRTL stands for Nationally Recognized Testing Laboratory. These laboratories are OSHA approved to perform testing and examining of equipment and materials for workplace safety purposes to determine **conformance with appropriate test standards**. If you purchase or direct someone to purchase anything electrical, Fermilab's contract with DOE states that it must have a NRTL listing. The seals can be found on the equipment or in the information on the product's website. If you can't confirm a product is listed, email or call the vendor before you enter a purchase req or buy with a Procard.

### **If you cannot find a suitable NRTL-listed product:**

- Contact your Electrical Coordinator (EC), Division Safety Officer (DSO), or Electrical Safety Subcommittee (ESS) member. They will help you find an alternative way to meet your needs that uses NRTL-listed electrical equipment.
- If there isn't a reasonable way to achieve what you need to accomplish with NRTL-listed equipment, your EC, DSO or ESS member will help you through the process of obtaining approval from the Electrical Authority Having Jurisdiction (AHJ) to use the non-NRTL product.

If you need features or durability beyond a basic NRTL listing, you can "set the bar" higher, but that has to be in addition to having the NRTL listing, not instead of having the NRTL listing.

Manufacturers and distributors may try to hide that their product isn't NRTL-listed, or can even be downright deceptive about it. Please bring such cases to the attention of your Suspect / Counterfeit Item Coordinator (AD has several, listed on this page) to investigate as soon as you are aware of a possible problem.

Raymond Lewis

Acting Accelerator Directorate Safety Officer

*The logos shown below, courtesy of OSHA and the European Commission on Enterprise, are examples of NRTL listing seals.*





# The Machine Report

## *FAST/IOTA focused on results*

Operation of the Fermilab Accelerator Science and Technology (FAST) accelerator and Integrable Optics Test Accelerator (IOTA) ring has focused on completing the research program of Run 4. These studies, some of which had been postponed since Run 2 in 2020, **facilitate commissioning of the facility's Nonlinear Integrable Optics (NIO) magnet** installed in the IOTA ring. The NIO creates a novel type of beam focusing optics that is more robust to perturbations found in the presently used linear accelerator lattices comprised of dipole and quadrupole magnets. The development of NIO has the potential to push beam intensity boundaries at future accelerator facilities.

## *AD all-hands in-person*

AD welcomed its employees at the all-hands meeting held in a hybrid format in Ramsey Auditorium on October 19. Alexander Valishev delivered various updates since the last all-hands meeting held in June. Included with organizational structure changes and FY22 accelerator run and shutdown statistics were the **positive outcomes of the DOE review of Accelerator and Accelerator Test Facility Operations** and AD's role in shaping the future of particle physics through Snowmass, the Particle Physics Project Prioritization Panel (P5). This was the first opportunity for AD employees to gather in-person for an all-hands meeting since October 2019.

## Physics-quality beam to NuMI established on November 13!

### Help us help you

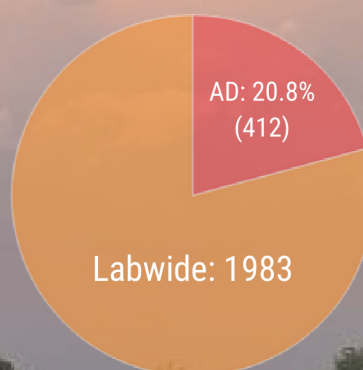
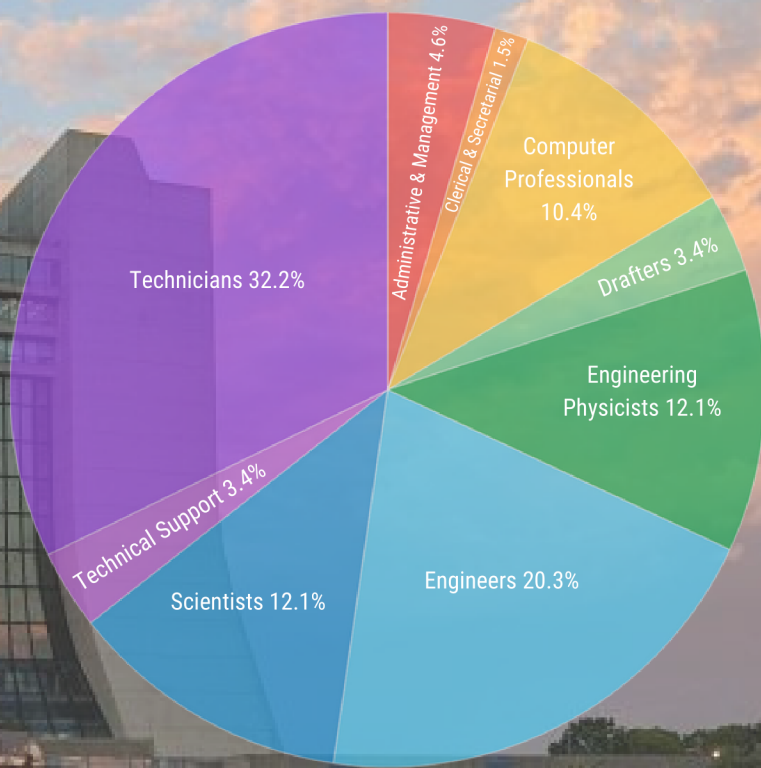
Share your updates, accomplishments and cool photos with Alyssa Miller by **Wednesday, November 23** to be featured in the combined December and January issue of *The Beam Pulse*. AD wants to know what you're proud of!

## *Accelerator startup progressing*

Following its annual summer accelerator shutdown period AD has been steadily working through its many startup activities required before beam delivered to users becomes stable. The complex has been **undergoing the extensive beamline preparation processes** which include but are not limited to reenergizing magnet and radiofrequency (RF) power supplies, turning on water cooling systems and testing beam enclosure safety interlocks. This work is facilitated by run coordinators Nino Chelidze and Jeff Eldred, each individual beamline machine coordinator, each member of the engineering support groups, AD Main Control Room personnel and the Environment, Safety & Health (ES&H) Division's Radiation Physics group.



# Know Your Organization!



## New hires

Dave Bracey, Instrumentation

Eric Carson, Target Systems

\* Keith Engell, Controls

Adrian Orea, Target Systems

Jonathan Williams, Target Systems

\* Correction: previously associated with ACORN

## November work anniversaries

Lila Anderson

Maurice Beecham

Laura Bolt

Alexey Burov

Michael Campbell

Irma Campos

Edward Cullerton

Kit Danison-Fieldhouse

Tyler Drendel

Jerry Firebaugh

Kyle Kendziora

Michele McCusker-

Whiting

Sergei Nagaitsev

Paul Neville

Dennis Nicklaus

Michael Olander

Ty Omark

Rachel Pfaff

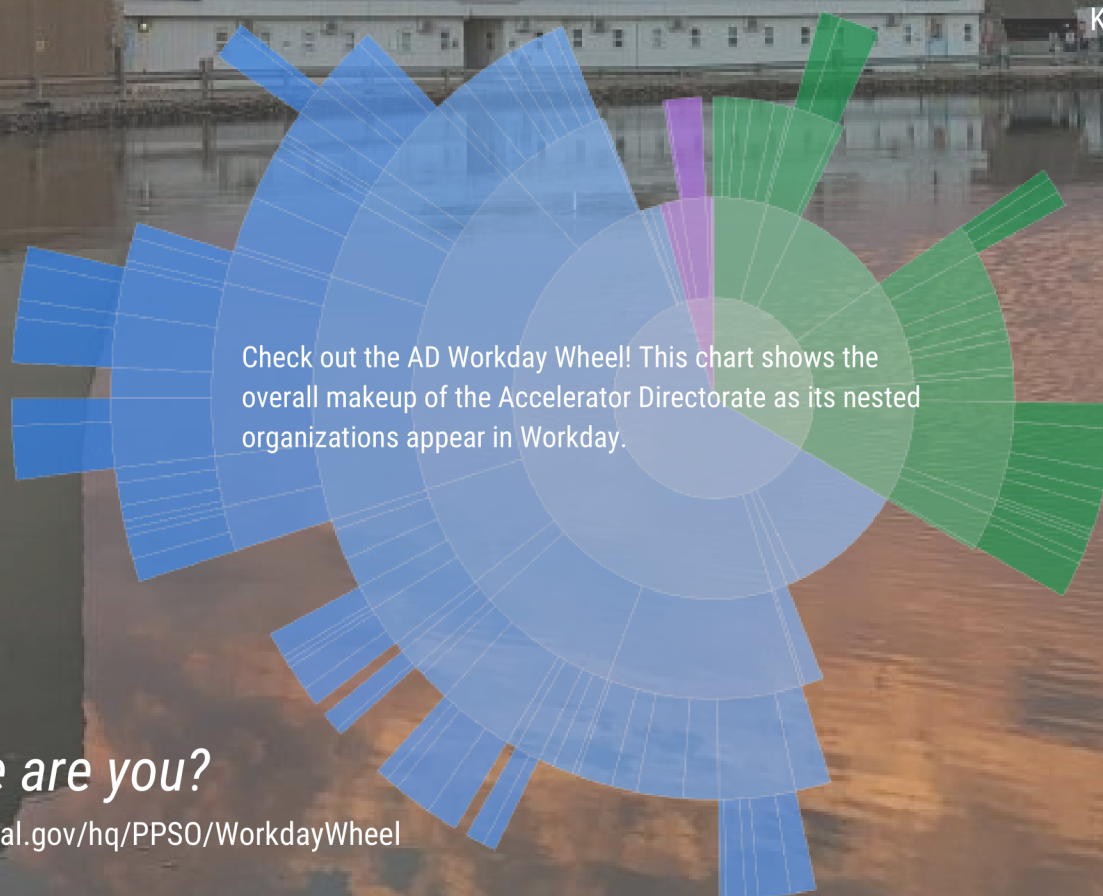
Michael Sliczniak

Robert Steinberg

Igor Tropin

Daniel Vrbos

Adam Watts



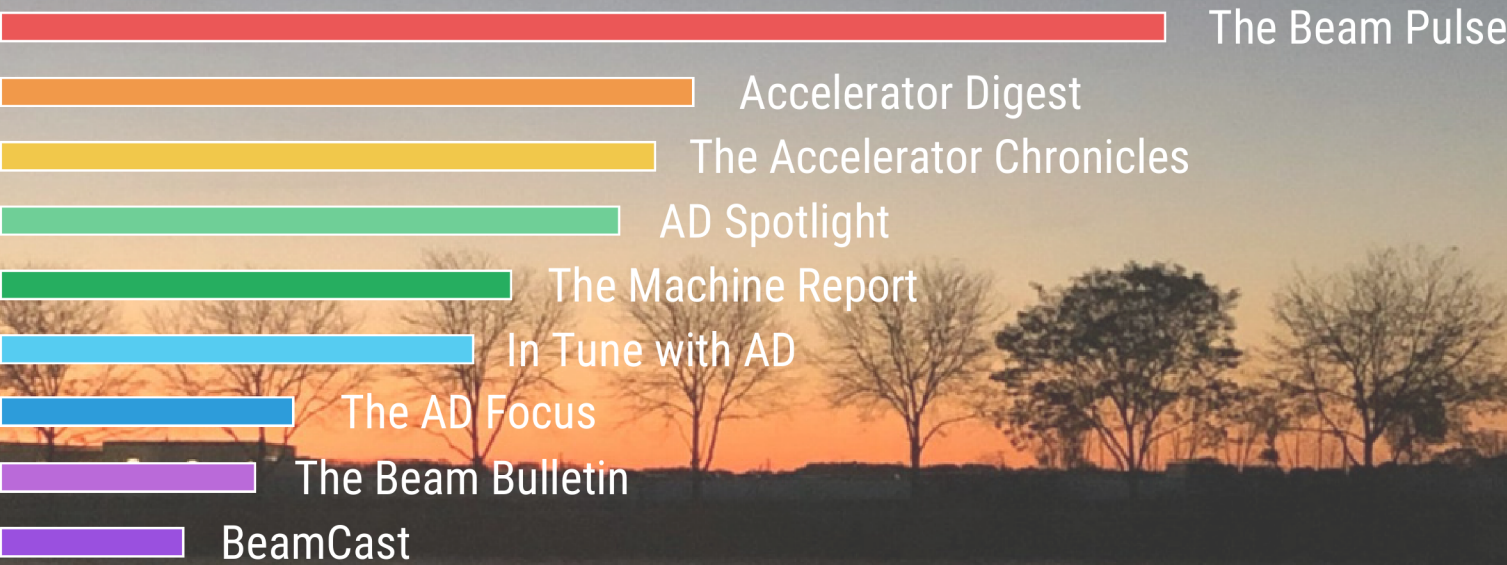
## Where are you?

Visit [ad.fnal.gov/hq/PPSO/WorkdayWheel](https://ad.fnal.gov/hq/PPSO/WorkdayWheel)



# Newsletter naming stats

*AD's creatives submitted a total of 118 unique newsletter name suggestions, which are listed here. **The Beam Pulse** had the most first-choice rankings across 134 votes - a clear winner!*



## The Accelerator Periodical

(De)Focusing . 1967 A.D. . Accelerating Frontier . Accelerating Greatness . Accelerating Science . Accelerating the Boundary . Accelerator . Accelerator Beam Communication . Accelerator Chronicles . Accelerator Digest . Accelerator Direct . Accelerator Diversions . Accelerator News . Accelerators and Us . Accelerātus . AD Beam Experiments and Acceleration News . AD Communications . AD Cornucopia's Fantastic Newsmagorium . AD Forward-Thinking Newsletter . AD Lib . AD News . AD Newsletter . AD Pontificating on Outrageous Projects . AD Spotlight . AD Venerable Investigations and Creative Exposes . ADdition . AD-HOC . ADispatch . ADventures . ADventures in Accelerator Physics Technology . ADvertise Newsletter . Aperture . Around the Beam . Beam Me Up . Beam On . Beam Talk . BeamCast . Beamlines . BeamsNews . Beamy McBeamface . Beta Blog . Broken Symmetry . Circulate . Collimator . Complex Communications . Current Events . Direct ConnectDown the Beam Pipe . Faster Than Light . FermiNews . Get Accelerated . GeV Gazette . Impulse . In the Lab Frame . In Tune With AD . Intensity Frontier . Intensity News . Intricacies Overload . Labgram . Light Speed . Machine Messages . Megawatt . MegaWatt Today . Monthly ADD: Accelerator Directorate Diaries . More Than Radiation . Nuntius . On the (Beam)line . On the Line . Particle Acceletter . Particle Articles . Periodical Accelerator . Proton Flux . Puddles in Dark Tunnels . Quad News . Radioactive Licensors . Remarkable Issues . Science Matters . Shielding Blocks . Silver News . TachTalk . Technically In Touch . The Accel Orator . The Accelerator Digest . The Accelerator Directorate Newsletter . The Accelerator Division Newsletter . The Accelerator Log . The Accelerator Periodical . The Accelerator Timeline . The AD Crier . The AD Focus . The AD Hark . The ADvocate . The Baryon Bulletin . The Beam Brief . The Beam Broadcast . The Beam Bulletin . The Beam Buzz . The Beam Pulse . The Beamer . The Betatron Beat . The Compliance . The Electron Cloud . The Fermion . The Lorentz Letter . The Machine Report . The Proton Gazette . The Proton Periodical . The Proton Press . The Pulse of AD . The Revolution Times . The Source . The Synchrotron Scoop . The Tunnel Tour . The v's Paper . Tunnel Tour . Up & Atom . Velocity . Watts New