## FYI - LIBRARY NEWS/ALERTS

Date: 06 Aug 2025

#### **FYI - Fusion News/Alerts**

### F4E signs collaboration agreement with Proxima Fusion

https://fusionforenergy.europa.eu/news/f4e-signs-collaboration-agreement-with-proxima-fusion/

A dual ion beam tests new steel under fusion energy-producing conditions <a href="https://ners.engin.umich.edu/2025/08/05/a-dual-ion-beam-tests-new-steel-under-fusion-energy-producing-conditions/">https://ners.engin.umich.edu/2025/08/05/a-dual-ion-beam-tests-new-steel-under-fusion-energy-producing-conditions/</a>

## Los Alamos, Lawrence Livermore achieve fusion ignition with groundbreaking approach

https://www.lanl.gov/media/news/0731-fusion-ignition

### China launches fusion-focused company

https://www.ans.org/news/article-7244/china-launches-fusionfocused-company/

### Researchers make key gains in unlocking the promise of compact X-ray freeelectron lasers

https://phys.org/news/2025-07-key-gains-compact-ray-free.html

## Cracking the alchemist's code: fusion energy company looks to turn mercury into gold

https://www.kitco.com/news/article/2025-07-30/cracking-alchemists-code-fusion-energy-company-looks-turn-mercury-gold

# Physics-tailored machine learning reveals unexpected physics in dusty plasmas

https://www.pnas.org/doi/10.1073/pnas.2505725122

# Simulations reveal surprising electron temperatures near M87 black hole's event horizon

https://phys.org/news/2025-07-simulations-reveal-electron-temperatures-m87.html

### **Inside Washington's New Energy Policy**

https://www.hbs.edu/bigs/inside-washingtons-new-energy-policy

Physicist awarded prestigious Fellowship to investigate quark-gluon plasma <a href="https://news.liverpool.ac.uk/2025/08/04/physicist-awarded-prestigious-fellowship-to-investigate-quark-gluon-plasma/">https://news.liverpool.ac.uk/2025/08/04/physicist-awarded-prestigious-fellowship-to-investigate-quark-gluon-plasma/</a>

#### **U.S. Nuclear Energy Plans Could Proliferate Weapons**

https://www.scientificamerican.com/article/u-s-nuclear-energy-policy-could-accelerate-weapons-proliferation/

#### Recent Peer-Reviewed Articles of Interest

Low-density plasma as a key catalyst for electron acceleration in the Van Allen radiation belts

### **FYI - LIBRARY NEWS/ALERTS**

https://www.nature.com/articles/s42005-025-02223-w

ARTEMIS Observations of Electron Cyclotron Harmonic Waves in the Lunar Plasma Environment

https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2025GL116971

Enhanced photon deceleration in an electron beam-assisted laser wakefield accelerator

https://pubs.aip.org/aip/pop/article/32/7/073110/3356977/Enhanced-photon-deceleration-in-an-electron-beam

An Extended Kalman Filter approach for tokamak plasma equilibrium reconstruction

https://www.sciencedirect.com/science/article/pii/S0920379625005599

Machine-learned trends in mirror configurations in the large plasma device <a href="https://pubs.aip.org/aip/pop/article/32/8/082106/3357758/Machine-learned-trends-in-mirror-configurations-in">https://pubs.aip.org/aip/pop/article/32/8/082106/3357758/Machine-learned-trends-in-mirror-configurations-in</a>

Transient characteristic analysis of dual-frequency dielectric barrier discharge based on numerical simulation

https://pubs.aip.org/aip/pop/article/32/8/083502/3357777/Transient-characteristic-analysis-of-dual

Tritium permeation experiments; design choices and appropriateness to fusion application research

https://www.sciencedirect.com/science/article/pii/S0920379625005472

Nonlocal effects on thermal transport in hydrodynamic simulations of unmagnetized MagLIF-relevant gaspipes on NIF

https://pubs.aip.org/aip/pop/article/32/8/082104/3357448/Nonlocal-effects-on-thermal-transport-in

Influence of the iron core on three-dimensional magnetic field in the J-TEXT tokamak

https://www.sciencedirect.com/science/article/pii/S0920379625005708

### [Of Interest]

Sleuths and scientific institutions are not rivals <a href="https://www.nature.com/articles/d41586-025-02347-7">https://www.nature.com/articles/d41586-025-02347-7</a>