FYI – FUSION NEWS/ALERTS

Date: 05 Nov 2024

Stellarators - “Things are different now”
https://www.iter.org/node/20687/things-are-different-now
[Latest ITER Newsline: https://www.iter.org/whatsnew]

New company takes over UK's STEP fusion programme
https://www.world-nuclear-news.org/articles/new-company-takes-over-uks-fusion-programme

Gyrotrons: The Backbone of Fusion Energy
https://euro-fusion.org/eurofusion-news/gyrotrons-the-backbone-of-fusion-energy/

Baking the perfect pie one piece at a time: PPPL makes progress on central magnet of NSTX-U
https://www.pppl.gov/news/2024/baking-perfect-pie-one-piece-time-pppl-makes-progress-central-magnet-nstx%E2%80%91u

Inside a fusion energy facility
https://www.technologyreview.com/2024/10/31/1106384/inside-a-fusion-energy-facility/

Smart handling of neutrons is crucial to fusion power success
https://news.mit.edu/2024/smart-handling-neutrons-crucial-fusion-power-success-1101

Igniting Fusion Energy’s Future: The Surprising Power of Boron
https://scitechdaily.com/igniting-fusion-energys-future-the-surprising-power-of-boron/

Investment is pouring in as the hype around nuclear fusion grows
https://www.businessinsider.in/artificial-intelligence/news/investment-is-pouring-in-as-the-hype-around-nuclear-fusion-grows/articleshow/114913803.cms

Texas A&M receives funding to train machine learning tools in discovery of new materials for fusion power plants
https://www.eurekalert.org/news-releases/1063657

Félicie Albert elected vice chair of APS Division of Plasma Physics
https://engineering.llnl.gov/article/52011/felicie-albert-elected-vice-chair-aps-division-plasma-physics

LLNL's Scientific Expertise Highlighted at Plasma Physics Meeting
https://lasers.llnl.gov/news/llnls-scientific-expertise-highlighted-plasma-physics-meeting

A New Twist on Stellarator Design
https://physics.aps.org/articles/v17/s124

Axion clouds around neutron stars could reveal dark matter origins

https://physicsworld.com/a/axion-clouds-around-neutron-stars-could-reveal-dark-matter-origins/

Nanoscale transistors could enable more efficient electronics
https://news.mit.edu/2024/nanoscale-transistors-could-enable-more-efficient-electronics-1104

ABS sees potential for nuclear-powered LNG carriers
https://www.world-nuclear-news.org/articles/abs-sees-potential-for-nuclear-powered-lng-carriers

Nuclear propulsion system proposed for European space missions
https://www.world-nuclear-news.org/articles/nuclear-propulsion-system-proposed-for-european-space-missions

Iowa students help develop NASA satellites
https://physics.uiowa.edu/news/2024/11/iowa-students-help-develop-nasa-satellites

Recent Peer-Reviewed Articles of Interest

Physics, AI, and the future of discovery
https://pubs.aip.org/physicstoday/article/77/11/30/3318195/Physics-AI-and-the-future-of-discoveryLeaders-from

High-temperature superconductors and their large-scale applications
https://www.nature.com/articles/s44287-024-00112-y

Combined plasma lens and rephasing stage for a laser wakefield accelerator
https://www.nature.com/articles/s41598-024-78143-6

Controlling the initial separation distance between two electron plasma vortices in a Malmberg–Penning trap
https://www.nature.com/articles/s41598-024-76070-0

Nuclear energy and climate change
https://pubs.aip.org/physicstoday/article/77/11/10/3318353/Nuclear-energy-and-climate-change

MHD-induced beta limits in the Large Helical Device
https://pubs.aip.org/aip/pop/article/31/10/102509/3318466/MHD-induced-beta-limits-in-the-Large-Helical