

Date: 06 May 2025

FYI - Fusion News/Alerts

ITPA and IMAS now accessible to privately funded fusion initiatives

<https://www.iter.org/node/20687/itpa-and-imas-now-accessible-privately-funded-fusion-initiatives>

[Latest ITER Newslines: <https://www.iter.org/whatsnew/456>]

Tritium breeding and monitoring in molten salt for fusion energy applications

<https://www.psfc.mit.edu/research-areas/tritium-breeding-in-molten-salt-kevin-woller/>

Magnetic confinement advance promises 100 times more fusion power at half the cost

<https://phys.org/news/2025-04-magnetic-confinement-advance-fusion-power.html>

IFMIF-DONES and Industry Office lead the participation of companies from Granada in the ITER Business Forum

<https://ifmif-dones.es/dones-updates/ifmif-dones-and-industry-office-lead-the-participation-of-companies-from-granada-in-the-iter-business-forum/>

Value-led fusion technology: A framework for guiding fusion commercialisation strategy

<https://www.sciencedirect.com/science/article/pii/S0301421525000837>

New fusion opportunities and partnerships at the ITER Business Forum

<https://fusionforenergy.europa.eu/news/iter-business-forum-fusion-opportunities-partnerships/>

Combing Through the Sun's Corona for Dark Matter

<https://physics.aps.org/articles/v18/91>

NASA's Dragonfly nuclear-powered helicopter clears key hurdle ahead of 2028 launch toward huge Saturn moon Titan

<https://www.space.com/space-exploration/missions/nasas-dragonfly-nuclear-powered-helicopter-clears-key-hurdle-ahead-of-2028-launch-toward-huge-saturn-moon-titan>

Target designs for improving fusion ignition yield

<https://ww2.aip.org/scilights/target-designs-for-improving-fusion-ignition-yield>

Video game-inspired algorithm rapidly detects high-energy particle collisions for future fusion reactors

<https://phys.org/news/2025-04-video-game-algorithm-rapidly-high.html>

Wisconsin lawmakers, startups envision a nuclear energy renaissance

<https://energy.wisc.edu/news/wisconsin-lawmakers-startups-envision-nuclear-energy-renaissance>

Is nuclear power the key to a low-carbon future?

<https://today.usc.edu/is-nuclear-power-the-key-to-a-low-carbon-future/>

Breakthrough Algorithm Detects Collisions of High-Energy Particles in Nuclear Fusion Reactors

<https://news.unist.ac.kr/breakthrough-algorithm-detects-collisions-of-high-energy-particles-in-nuclear-fusion-reactors/>

‘Photon-shuttling’ quantum interconnects enable remote entanglement

<https://www.laserfocusworld.com/quantum/article/55284114/photon-shuttling-quantum-interconnects-enable-remote-entanglement>

Scientists use the JWST to study an extremely ancient galaxy piercing through the Cosmic Dark Ages

<https://www.space.com/space-exploration/james-webb-space-telescope/scientists-use-the-jwst-to-study-an-extremely-ancient-galaxy-piercing-through-the-cosmic-dark-ages>

Recent Peer-Reviewed Articles of Interest

Enhancing computational efficiency in nuclear fusion through reduced order modelling: Applications in magnetohydrodynamics

<https://www.sciencedirect.com/science/article/pii/S0920379625002777>

Design of the cryogenic distribution system for the ITER disruption mitigation based on shattered pellet injection

<https://www.sciencedirect.com/science/article/pii/S0920379625003138>

Machine Learning-Based Multispectral Fusion for Analyzing Molecular Structural Features

<https://pubs.acs.org/doi/full/10.1021/acs.jpcllett.5c00658>

Design and qualification of a ceramic insulating break for ITER In-Vessel Coils

<https://www.sciencedirect.com/science/article/pii/S0920379625003096>

Double 3 MJ dense plasma focus for thermonuclear drive inertial confinement fusion

<https://www.nature.com/articles/s41598-025-96736-7>

Development of an arc discharged multicusp negative hydrogen ion source for medical cyclotrons

<https://pubs.aip.org/aip/rsi/article/96/4/043310/3344988/Development-of-an-arc-discharged-multicusp>

Direct lab observation reveals key mechanism behind cosmic particle acceleration

<https://phys.org/news/2025-04-lab-reveals-key-mechanism-cosmic.html>

On the nature of subharmonics of the electron emission from ultracold plasmas

<https://pubs.aip.org/aip/pop/article/32/4/043512/3345145/On-the-nature-of-subharmonics-of-the-electron>

[*Of Interest*]

Want to supercharge your science? Turn to technicians

<https://www.nature.com/articles/d41586-025-01353-z>