### **FYI – FUSION NEWS/ALERTS**

Date: 04 July 2024

### Toroidal field coil celebration - "A good day for the world"

https://www.iter.org/newsline/-/4055

Latest ITER Newsline: https://www.iter.org/whatsnew]

#### Giant international fusion project is in big trouble

https://www.science.org/content/article/giant-international-fusion-project-big-trouble

#### The implications of the new ITER schedule

https://www.ipp.mpg.de/5434926/ITER\_baseline\_2024

### Why is ITER valuable for the U.S.?

https://www.ans.org/news/article-6149/why-is-iter-valuable-for-the-us/

## Machine learning could aid efforts to answer long-standing astrophysical questions

https://www.pppl.gov/news/2024/machine-learning-could-aid-efforts-answer-long-standing-astrophysical-questions

# Nuclear fusion challenges: Low pressure, high temperature, and the electromagnetic field

https://www.power-technology.com/sponsored/nuclear-fusion-challenges-low-pressure-high-temperature-and-the-electromagnetic-field/

# FIA Participates in Fusion for Energy (F4E) Roundtable on Regulations and Partnerships

https://www.fusionindustryassociation.org/fia-participates-in-fusion-for-energy-f4e-roundtable-on-regulations-and-partnerships/

#### India sees nuclear power generation to surge 70% by 2029

https://asian-power.com/power-utility/news/india-sees-nuclear-power-generation-surge-70-2029

#### Italy 'could get 22% of electricity from nuclear by 2050'

https://www.world-nuclear-news.org/Articles/Italy-s-electricity-could-be-20-from-nuclear-by-20

#### KU Leuven and TU Eindhoven enter into robust semicon collaboration

https://www.tue.nl/en/news-and-events/news-overview/01-07-2024-ku-leuven-and-tu-eindhoven-enter-into-robust-semicon-collaboration

#### 3D-printed nuclear fuel parts tested in Alabama power plant

https://www.neimagazine.com/news/3d-printed-nuclear-fuel-parts-tested-in-alabama-power-plant/

#### Chinese AI stirs panic at European geoscience society

https://www.science.org/content/article/chinese-ai-stirs-panic-european-geoscience-society

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#### Al and the nuclear safety case

https://www.neimagazine.com/analysis/ai-and-the-nuclear-safety-case/

### Recent Peer-Reviewed Articles of Interest

#### What is nuclear energy's role in mitigating climate change?

https://pubs.aip.org/physicstoday/article/77/7/22/3299573/What-is-nuclear-energy-s-role-in-mitigating

A diagnostic method of radial electron density distribution based on microwave transmission of cylindrical plasma along multipath

https://pubs.aip.org/aip/pop/article/31/7/073504/3300657/A-diagnostic-method-of-radial-electron-density

# 3D reconstruction of an inertial-confinement fusion implosion with neural networks using multiple heterogeneous data sources

https://pubs.aip.org/aip/rsi/article/95/7/073506/3300863/3D-reconstruction-of-an-inertial-confinement

#### Isochronous bifurcations of magnetic islands in tokamaks

https://pubs.aip.org/aip/pop/article/31/7/072502/3300590/Isochronous-bifurcationsof-magnetic-islands-in

Heat absorption effect of magneto-natural convection flow in vertical concentric annuli with influence of radial and induced magnetic field https://www.nature.com/articles/s41598-024-64779-x