“Temporal network-based analysis of turbulent mixing”

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Temporal network-based analysis of turbulent mixing

forcing

Turbulent flow (hidden patterns)

Turbulent flow + tracer (visible patterns)

Turbulent flow + tracer (hidden patterns)

Well mixed!
Temporal network-based analysis of turbulent mixing

Unpredictable (Turbulence)

Transient state

Tracer

Turbulent flow (hidden patterns)

Well mixed!

Turbulent flow + tracer (hidden patterns)
Temporal network-based analysis of **turbulent mixing**

**Riverine mixing**

**Atmospheric dispersion**

**Ocean mixing**

**Biophysical dynamics**

Applications

* www.amazon-of-europe.com
† kai Stachowiak (publicdomainpictures.net)
§ Unknown author, CC BY licence
‡ ScienceNews, Vol. 193, No. 8, May 12, 2018, p. 16
Temporal network-based analysis of turbulent mixing

Turbulent channel flow
(model for mixing and dispersion in rivers, atmosphere, …)

Nodes = Tracer

Links = Spatial proximity

Flow direction

Temporal network-based analysis of turbulent mixing

Questions + info? Please contact me:

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