Closed Timelike Curls

ARCH470 | DDS

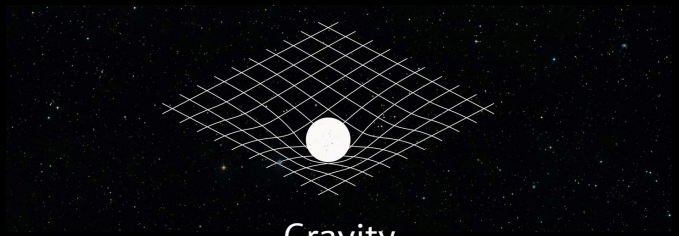
Özgür Gülsuna
2307668

ddstudio
DIGITAL DESIGN STUDIO

Leverage

It is not about **creating** something entirely **new**.
Improving on something that already exist

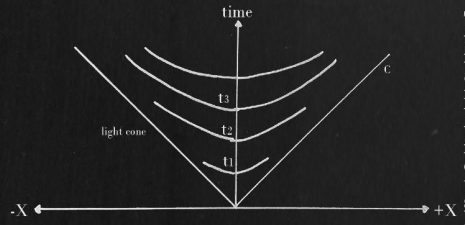
Up & Down



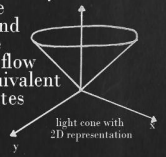
Gravity

t_0 t_n t_m

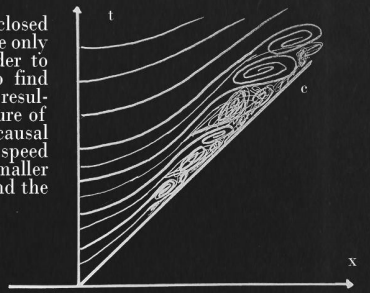
Semi-Causal Structure of SPACETIME

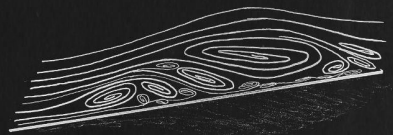


Think of a certain universe where the time is an entity such that it is greatly influenced by the gravity. It has viscosity and it is restricted to flow only forwards in time. It can experience turbulance phenomena and time shifts occur at those instances. The trubulent flow creates a force that is equivalent to the gravity and it creates strong waves just like hurricanes.



Gödel Metric is not the only solution that allows closed timelike curves and closed timelike curves are not the only reason for causal structure to be violated. In order to establish a physical causal structure, one has to find relation between the spacetime events such that the resultant relations will emerge to a global causal structure of spacetime. This space time definition creates semi-causal structure where the time shift can occur in high speed accelerated turbulant areas. For speeds much smaller than the speed of light no turbulence is observed and the time flow is laminar.





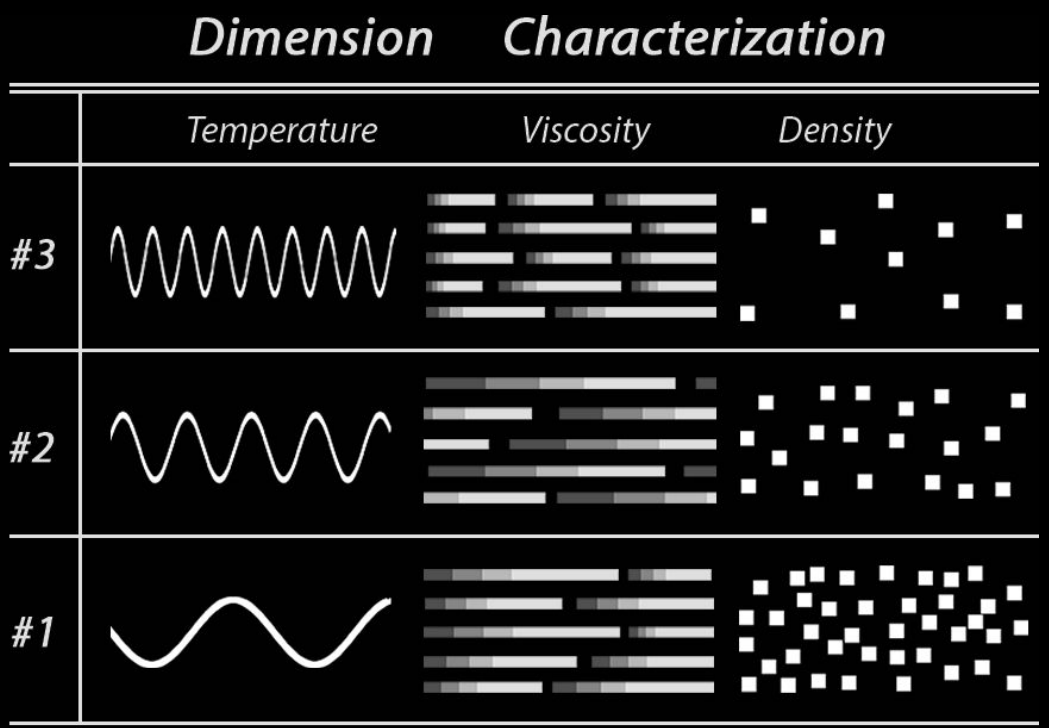
Parameters

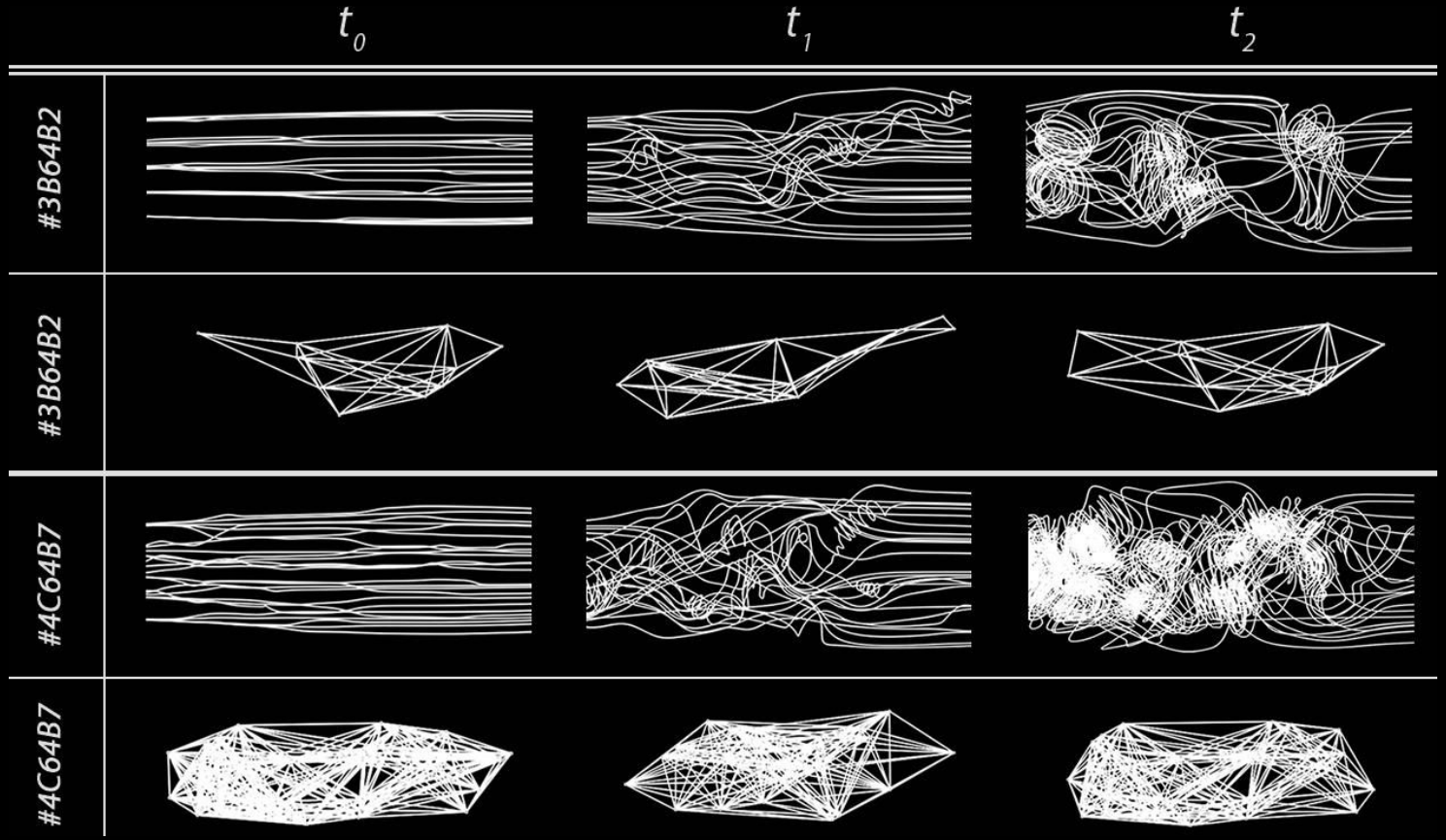
- temperature
- kinetic viscosity
- density

- velocity
- dimension

Elements

- deformation
- direction
- connection




t_0
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t_2
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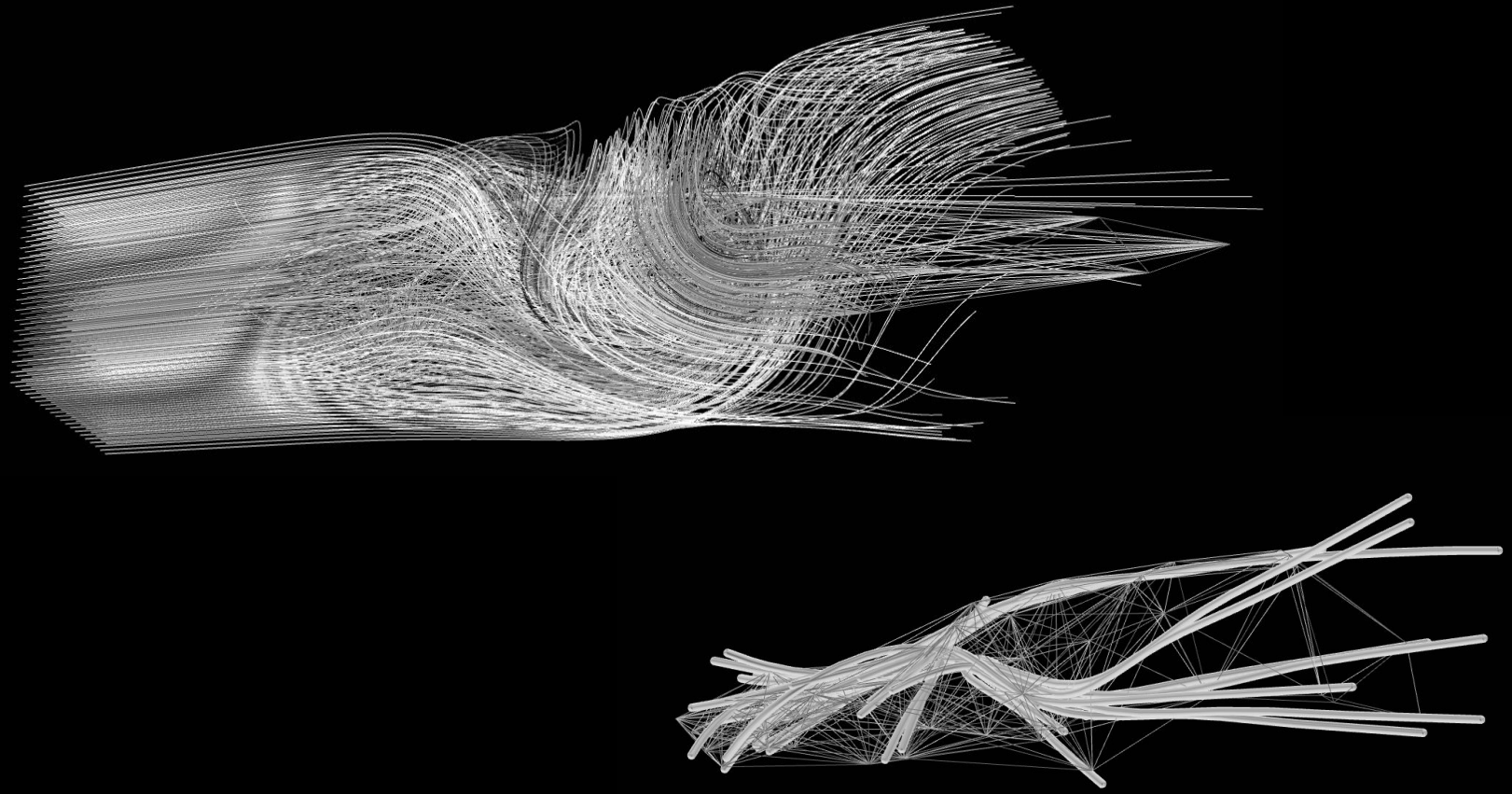
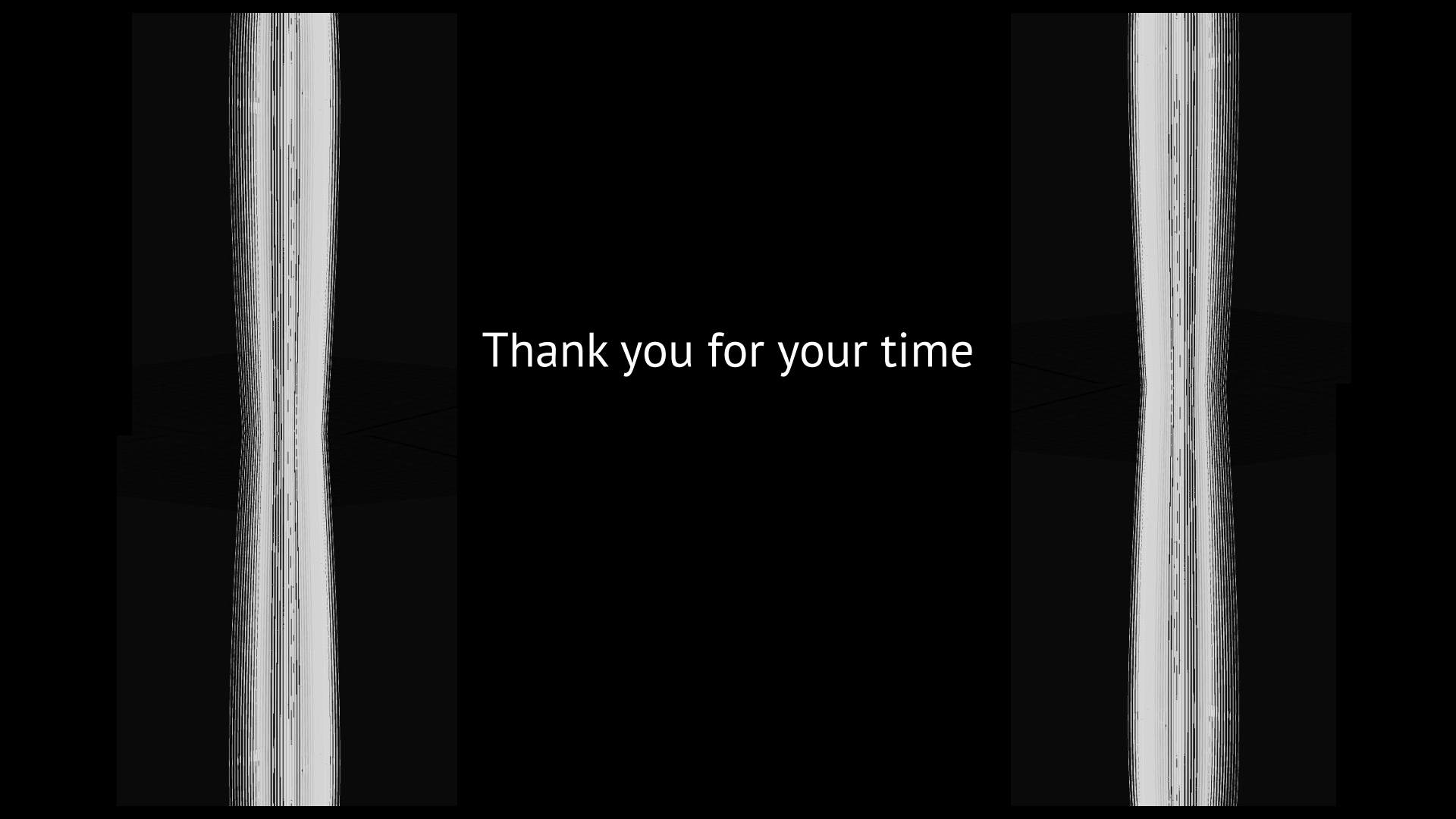


Further Thoughts

- How light transport in this medium ?
- Relation with matter, how it stretches and deforms.
- Time-curvature mirror


Thank you for your time