Holography, Finite-Temperature QFT and Hydrodynamics

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References

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• Books on Gauge-String Duality (Holography)

• Reviews and lectures directly relevant for this course

• Reviews of Gauge-String Duality and Applications

- **Duality in Lattice Statistical Mechanics**

- **Duality in QFT**
Y. Frishman and J. Sonnenschein, ”Non-Perturbative Field Theory: From Two Dimensional Conformal Field Theory To QCD In Four Dimensions”, Cambridge U. Press, 2010.

- **QFT at Finite Temperature and Density**

- **Uncategorised**
• **Hydrodynamics**

• **Large N expansion**

• **Black hole thermodynamics, Bekenstein-Hawking entropy and microstates counting**

• **Black branes**

• **The original AdS/CFT papers**

• **Original papers relevant for the course**

• **Holography and phenomenology of heavy ion physics**

• **Books on string theory**

• **Online lecture courses**
  J. McGreevy, MIT lectures, TASI lectures and other recordings online.
  S. Hartnoll, Nordita lectures and other recordings online.
  H. Liu, MIT lectures online.