

# Outline

SLIDES SFT  
2020

Nicodemo  
Magnoli

Trap size  
scaling

AdS/CFT and  
Hydrodynamics

Passive scalar

Other articles,  
talks, thesis...

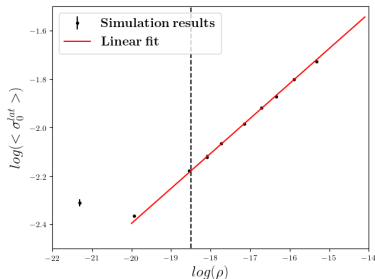
Publications  
2019/20

- 1 Trap size scaling
- 2 AdS/CFT and Hydrodynamics
- 3 Passive scalar
- 4 Other articles, talks, thesis...
- 5 Publications 2019/20

## Participants

- Nicodemo Magnoli (responsabile locale)
- Andrea Amoretti (RTDA)
- Daniel Brattan (PostDoc)
- Marcello Scanavino (Dottorando)
- Nicola Rigolli (Dottorando)

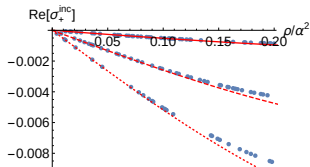
$$S = S_{CFT} + \int U(r)\epsilon(r)$$



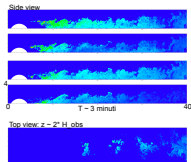
■  $\langle \sigma(0) \rangle_{\rho} = A_{\sigma} \rho^{\theta \Delta_{\sigma}}$

## AdS/CFT, HYDRODYNAMICS

- Relativistic magnetohydrodynamics and transport coefficients.
- Work in progress on holographic description of magnetized charge density waves (Amoretti, Areal, Brattán, Magnoli, Scanavino).



## ■ Odor and turbulence (Magnoli, Seminara, Rigolli, Rosasco)



- Schwinger effect in BCS superconductors (Amoretti, Solinas, Giazotto).
- Effective string model for the interquark potential near the deconfinement temperature (Caselle, Nada, Panero, Scanavino, Magnoli).
- Amoretti was invited in a workshop in Leiden to give a seminar: Hydrodynamics at all length scales.
- Amoretti has supervised a thesis by Luca Martinoia on hydrodynamics with anomalies and Weyl semimetals.

- Amoretti et al, JHEP 01 (2020) 058.
- Amoretti et al, JHEP 10 (2019) 068.
- Amoretti et al. Phys.Rev.Lett. 123 (2019).
- Caselle et al, Phys.Rev.D 100 (2019).
- Amoretti et al, Phys. Rev. Res. 2 (2020).
- Amoretti et al, submitted to JHEP (2020).
- Amoretti et al, submitted to Nature physics (2020).
- Amoretti et al, to be submitted to Phys.Rev.D (2020).