



29TH INTERNATIONAL  
CONFERENCE ON ULTRARELATIVISTIC  
NUCLEUS - NUCLEUS COLLISIONS

APRIL 4-10, 2022

KRAKÓW, POLAND



**2022 Zimanyi Medal**



## **Jozsef Zimanyi (1931 - 2006)**



**Renowned Hungarian physicist;  
chair of Science Council of KFKI;  
Member of the Hungarian Academy of Sciences.**

**Hungarian representative on the CERN  
Council (1992 - 2004).**

**Széchenyi Prize (2000).**

**Pioneered the notions of hadrochemistry and  
quarkochemistry in quark matter research;  
and one of the pioneers of the use of the relativistic  
hydrodynamical model for nuclear collisions.**

**Established Budapest heavy ion physics research school  
that is continued by his students.**

**Zimanyi Medal award was established in 2011.**

## **Zimanyi Medal Rules**

***The Zimanyi Medal is awarded to an outstanding young researcher working in heavy-ion physics theory. The research field is understood as generously wide, but it is oriented on Jozsef Zimanyi's life work.***

***No distinction, neither positive nor negative, can be made on the ground of race, gender, or nationality.***

Anyone who left this field of research (even if only recently) cannot be awarded this medal. An awardee must not have completed the fortieth year after birth (exceed the age of 39) until the beginning of the Quark Matter conference at which the Medal is awarded. The award cannot be shared among several persons.

# Selection Process

## The Selection Committee

Helen Caines (Yale)  
Hannah Elfner (FIAS/GSI)  
Eskola, Kari (Jyväskylä)  
Fukushima, Kenji (Tokyo)  
Grassi, Frédérique (Sao Paulo)  
Jacak, Barbara (LBNL)  
Lévai, Péter (Wigner RCP)  
McLerran, Larry (INT Seattle)  
Molnár, Dénes (Purdue)  
Ollitrault, Jean-Yves (Saclay)  
Rischke, Dirk (Frankfurt)  
Sasaki, Chihiro (Wroclaw)  
Schenke, Björn (BNL)  
Wang, Xin-Nian (CCNU)  
Wiedemann, Urs (CERN)

*Mueller, Berndt (chair)*  
*Bíró, Tamás (Zimanyi Foundation)*

## The Selection Process

Nomination round (18 nominees)

1<sup>st</sup> voting round (3 votes each)

→ short list (7 candidates)

2<sup>nd</sup> voting round (2 votes each)

→ finalists (2 candidates)

3<sup>rd</sup> voting round (1 vote each)

→ winner

## Previous Winners

2011 *Tetsufumi Hirano*

2012 *Péter Petreczky*

2014 *Tuomas Lappi*

2015 *Chihiro Sasaki*

2017 *Björn Schenke*

2018 *Hannah Petersen (Elfner)*

2019 *Eero Aleksi Kurkela*

# The Winner 2022

## Sören Schlichting

1987 Born in Frankfurt am Main (Germany)

2009 B.Sc at TU Darmstadt (Germany)

2011 M.Sc at Michigan State Univ. (MI, USA)

2013 Ph.D. at Univ. Heidelberg (Germany)

2013-2016 Postdoc at BNL (NY, USA)

2016-2018 Res. Assist. Prof. at INT Washington (USA)

2018- Junior Prof. at Univ. Bielefeld (Germany)

51 refereed publications

2528 citations on INSPIRE-HEP

28 h-index



# Main Accomplishments

## **Turbulent thermalization process in heavy-ion collisions at ultrarelativistic energies**

J. Berges, K. Boguslavski, S. Schlichting, R. Venugopalan

Phys.Rev.D 89 (2014) 7, 074011 e-Print: 1303.5650 [hep-ph] (228 citations)

## **Chiral magnetic effect and anomalous transport from real-time lattice simulations**

N. Müller, S. Schlichting, S. Sharma

Phys.Rev.Lett. 117 (2016) 14, 142301 e-Print: 1606.00342 [hep-ph] (51 citations)

## **Off-equilibrium sphaleron transitions in the Glasma**

M. Mace, S. Schlichting, R. Venugopalan

Phys.Rev.D 93 (2016) 7, 074036 e-Print: 1601.07342 [hep-ph] (75 citations)

## **Effective kinetic description of event-by-event pre-equilibrium dynamics in high-energy heavy-ion collisions**

A. Kurkela, A. Mazeliauskas, J.-F. Paquet, S. Schlichting, D. Teaney

Phys.Rev.C 99 (2019) 3, 034910 e-Print: 1805.00961 [hep-ph] (94 citations)

## **Hydrodynamic attractors, initial state energy and particle production in relativistic nuclear collisions**

G. Giacalone, A. Mazeliauskas, S. Schlichting

Phys.Rev.Lett. 123 (2019) 26, 262301 e-Print: 1908.02866 [hep-ph] (33 citations)

**The 2022  
Zimányi Medal on Nuclear Theory**



awarded to

*Sören Schlichting*

and presented

**at the Quark Matter 2022 Conference  
Cracow, Poland**

For his groundbreaking work on turbulence in Yang-Mill fluids and its implications for thermalization in heavy ion collisions, and his important contribution to matching the nonequilibrium initial stage of heavy ion collisions to hydrodynamics with QCD kinetic theory.

Prof. Tamás Sándor Biró  
Chair of Zimányi Physics  
Foundation

Prof. Berndt Müller  
Chair of the Selection  
Committee



Wigner Research Centre for Physics

# 2022 Zimanyi Medal on Nuclear Theory

## Sören Schlichting



Two thousand dollars

\$ 2000

For Sören Schlichting

Who is the Winner of Zimányi Medal 2022

Thanks to Gergely Zimányi