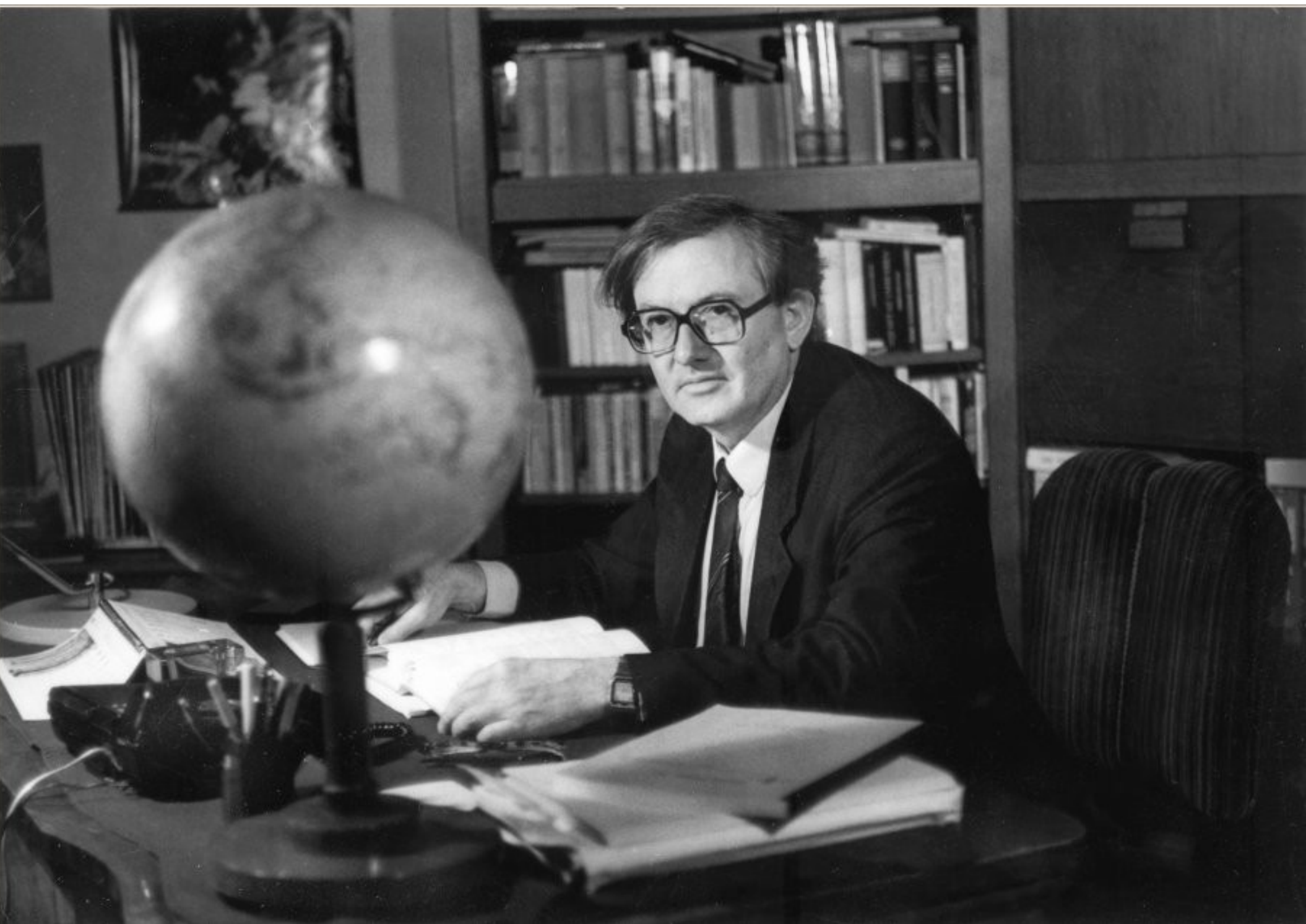


The „Zimányi Medal ” was created by the Hungarian sculptor Imre Varga



The Zimányi Medal in Nuclear Theory is granted to a young theoretical physicist under 40, who made extraordinary contributions to the field of high energy nuclear physics. The candidates must have a well documented record of accomplishment through published papers and international recognition to be nominated. The nomination and selection is made by 16 member selection committee and approved by the József Zimányi Physics Foundation.

The Foundation provides the winner with a cash prize together with a bronze Medal and a certificate with citation.



Hungarian Science Academician Professor Jozsef Zimanyi 1931-2006

**Gergely**



**Condensed  
Matter Theory  
UC Davis**  
<http://zimanyi.ucdavis.edu/>

**József (1931-2006)**

**Magdolna (1934-2016)**



**QM2005 Budapest**

## 2017 Zimanyi Award Selection Committee:

Levai, Peter (secr.)

Eskola, Kari

Harris, John

Heinz, Ulrich

McLerran, Larry

Redlich, Krzysztof

Schukraft, Jurgen

Stöcker, Horst

Csörgő, Tamás

Gyulassy, Miklós (chair)

Hatsuda, Tetsuo

Kodama, Takeshi

Müller, Berndt

Rischke, Dirk

Jacak, Barbara

Wang, Xin-Nian

Biro, Tamas is Chair of Zimanyi Foundation Executive Committee

The 2017 Selection Committee considered 20 outstanding candidates from around the world working on a wide range of topics including

Hydrodynamics, Transport theory, AdS/CFT, Lattice QCD, Jet quenching, Color Glass Condensates, Quark recombination, ...

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Previous winners:

In 2011 Tetsufumi Hirano , 3+1D Hydrodynamics of A+A

In 2012 Peter Petreczky , Lattice QCD Equation of State and  $V(Q\bar{Q})$

In 2014 Toumas Lappi , Color Glass Condensate/Glasma Theory

In 2015 Chihiro Sasaki , Field Theoretic Models of QCD phase structures

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The winner selected for QM 2017 is

Björn Peter Schenke

*The 2017  
Zimányi Medal on Nuclear Theory*



awarded to

*Björn Schenke*

and presented

*on February 11-th, 2017  
at the Quark Matter 2017 Conference  
Chicago, Illinois*

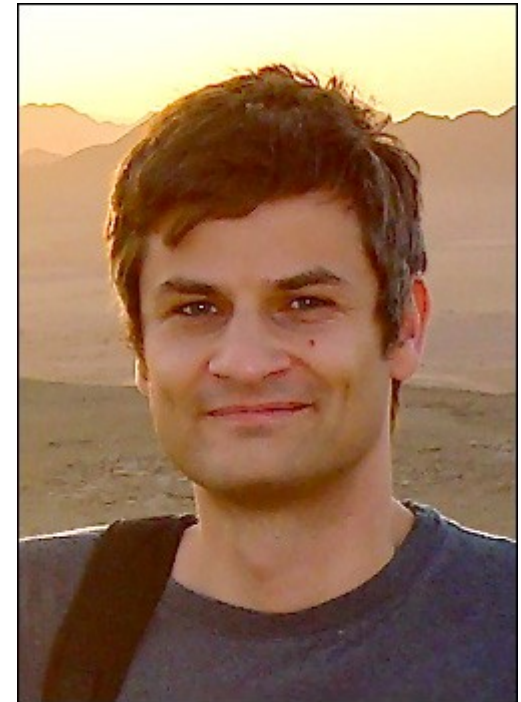
For his high impact pioneering work that explains quantitatively the centrality dependence of azimuthal angular dependence of flow fluctuations in relativistic heavy ion collisions and their relationship to underlying dynamics of the theory of strong interactions.

Prof. Tamás Sándor Bíró  
Chair of Zimányi Physics  
Foundation

Prof. Miklós Gyulassy  
Chair of the Selection  
Committee



*Wigner Research Centre for Physics  
of the Hungarian Academy of Sciences*



# Björn Peter Schenke

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## CONTACT INFORMATION

e-mail: [bschenke@bnl.gov](mailto:bschenke@bnl.gov)  
<http://quark.phy.bnl.gov/~bschenke>

## RESEARCH INTERESTS

### High energy nuclear theory

- Heavy-ion collisions, quark-gluon plasma
- Finite temperature/density quantum field theory
- Classical Yang-Mills and Wong-Yang-Mills theory
- Nuclei at high energy: Small-x physics and saturation
- Monte-Carlo simulations of heavy-ion collisions / Jet and high momentum physics
- Relativistic hydrodynamic simulations of heavy-ion collisions
- Non-equilibrium field theory
- Transport theory, non-linear dynamics, plasma instabilities

## EDUCATION

### Goethe University, Frankfurt am Main, Germany

*Dr. phil. nat. (summa cum laude)* (Ph.D.)

July 2008

- Graduation date: July 3rd 2008
- Advisor: Professor Dr. Carsten Greiner
- Thesis: “Collective Phenomena in the Non-Equilibrium Quark-Gluon Plasma”

## PROFESSIONAL EXPERIENCE

### Brookhaven National Laboratory, Upton, NY, USA

*Associate Physicist*

July 2014 – present

### McGill University, Montreal, Canada

*Richard H. Tomlinson Postdoctoral Fellow* September 2008 – November 2010

## AWARDS

**2014 - Early Career Research Program Award 2014**  
awarded by the U.S. Department of Energy (DOE) Office of Science

**2013 - IUPAP Young Scientist Prize for Nuclear Physics 2013**  
presented at INPC 2013, Florence, Italy

**2012 - Nuclear Physics A: Young Scientist Award 2012**  
presented at Quark Matter 2012, Washington DC, USA

**2012 - Gertrude and Maurice Goldhaber Distinguished Fellowship**  
April 2012 - September 2013, with funding from Battelle Memorial Institute und Stony Brook University, partners in Brookhaven Science Associates, Brookhaven National Laboratory, Upton, NY, USA

**2009 - Gernot und Carin Frank Preis 2009**  
Award for the best PhD work in the Department of Physics,  
Goethe University, Frankfurt am Main

Generated on 2017-02-03

94 papers found, 93 of them citeable (published or arXiv)

<b>Citation summary results</b>	Citeable papers	Published only
<b>Total number of papers analyzed:</b>	<u>93</u>	<u>63</u>
<b>Total number of citations:</b>	3,781	3,632
<b>Average citations per paper:</b>	40.7	57.7



# Highest Impact Papers so far

## 1. Elliptic and triangular flow in event-by-event (3+1)D viscous hydrodynamics

Bjorn Schenke, Sangyong Jeon, Charles Gale (McGill U.). Sep 2010. 4 pp.

Published in *Phys.Rev.Lett.* **106** (2011) 042301

DOI: [10.1103/PhysRevLett.106.042301](https://doi.org/10.1103/PhysRevLett.106.042301)

e-Print: [arXiv:1009.3244](https://arxiv.org/abs/1009.3244) [hep-ph] | [PDF](#)

[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndNote](#)  
[ADS Abstract Service](#)

[Detailed record](#) - [Cited by 393 records](#) 250+

First application of event-by-event  
IP-Glasma initial conditions theory  
Combined with  
2+1D viscous Hydrodynamic theory

## 2. Event-by-event anisotropic flow in heavy-ion collisions from combined Yang-Mills and viscous fluid dynamics

Charles Gale, Sangyong Jeon (McGill U.), Björn Schenke (Brookhaven), Prithwish Tribedy (Calcutta, VECC),

Raju Venugopalan (Brookhaven). Sep 2012. 5 pp.

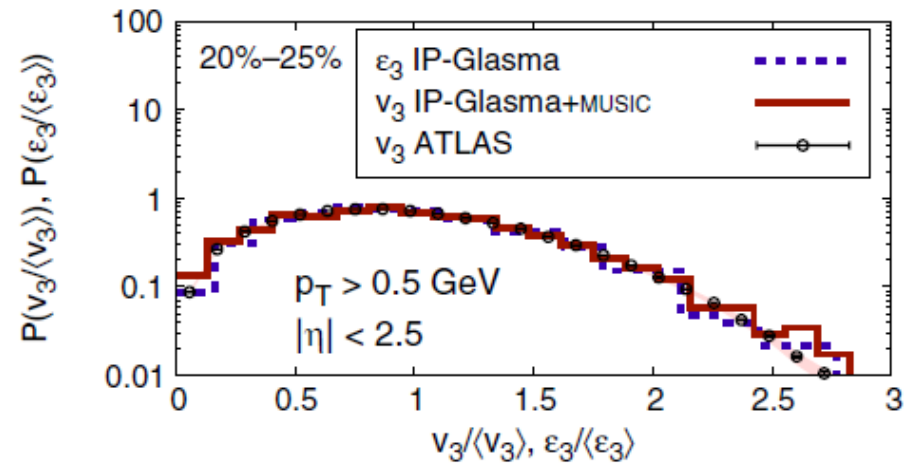
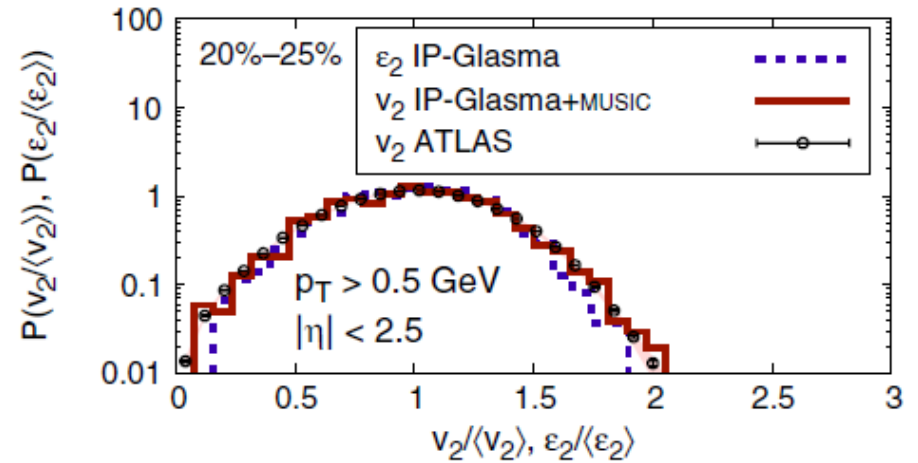
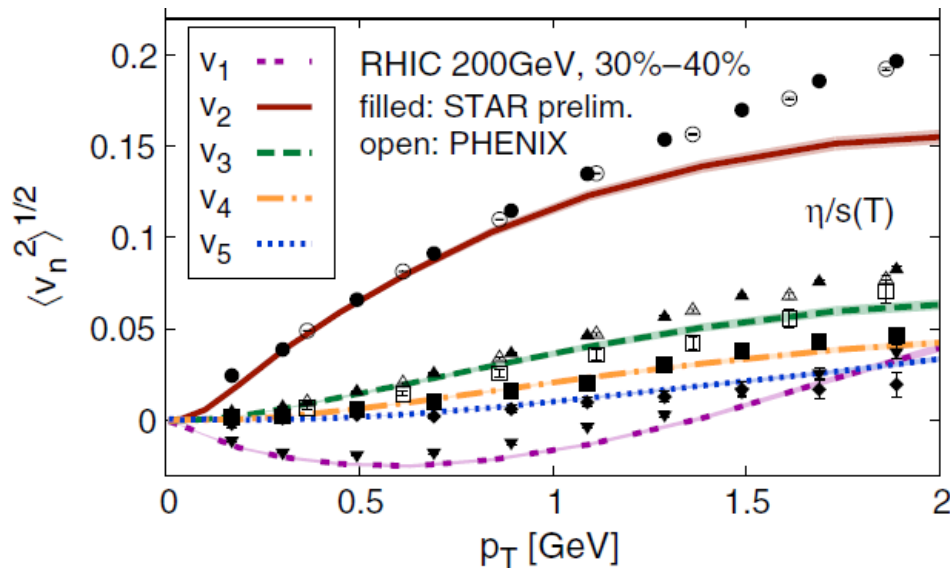
Published in *Phys.Rev.Lett.* **110** (2013) no.1, 012302

DOI: [10.1103/PhysRevLett.110.012302](https://doi.org/10.1103/PhysRevLett.110.012302)

e-Print: [arXiv:1209.6330](https://arxiv.org/abs/1209.6330) [nucl-th] | [PDF](#)

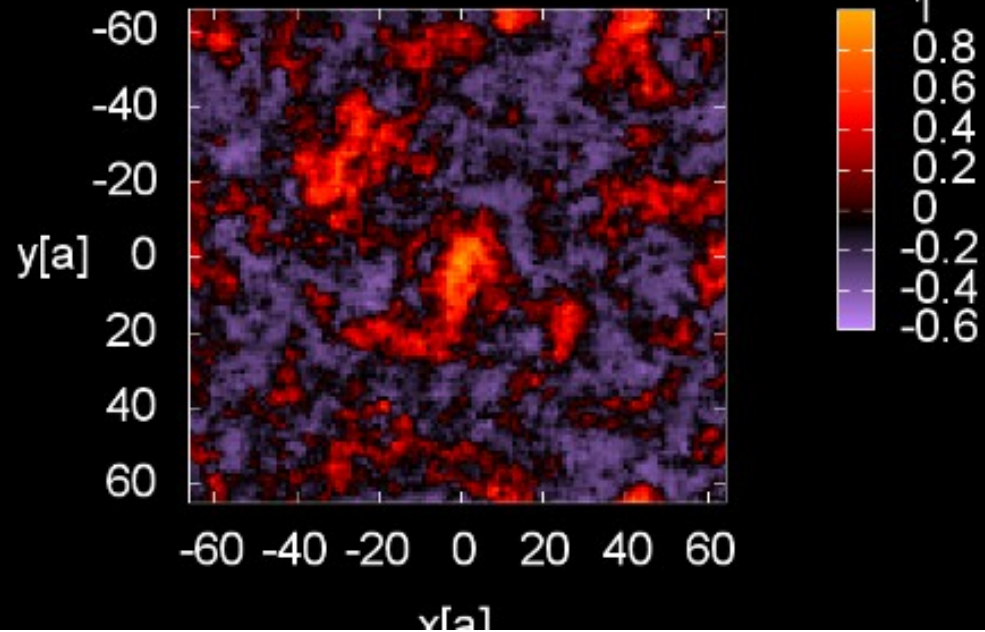
[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndN](#)  
[ADS Abstract Service](#); [OSTI Information Bridge Server](#)

[Detailed record](#) - [Cited by 294 records](#) 250+

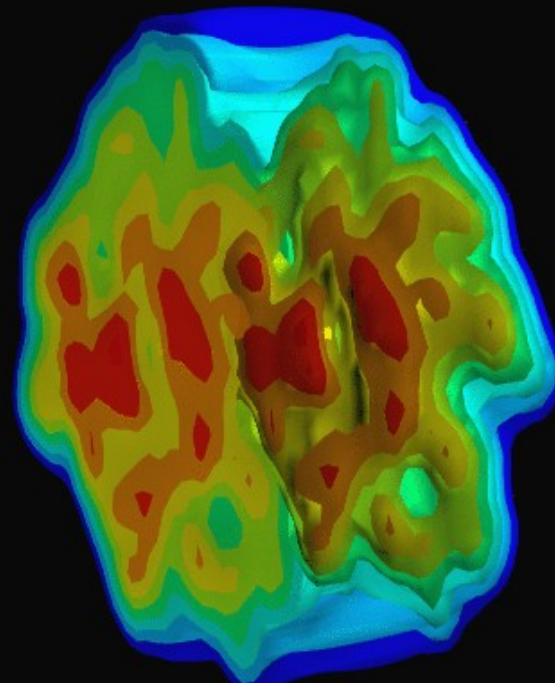


IP-Glasma  $\Upsilon = 6.8$

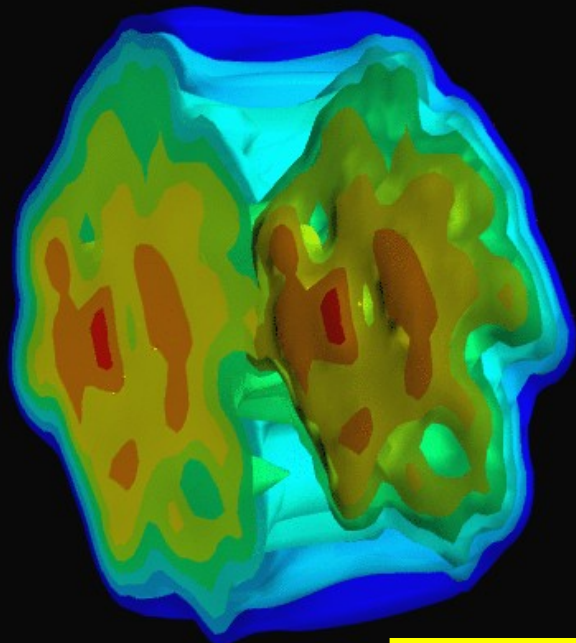
Wilson Line



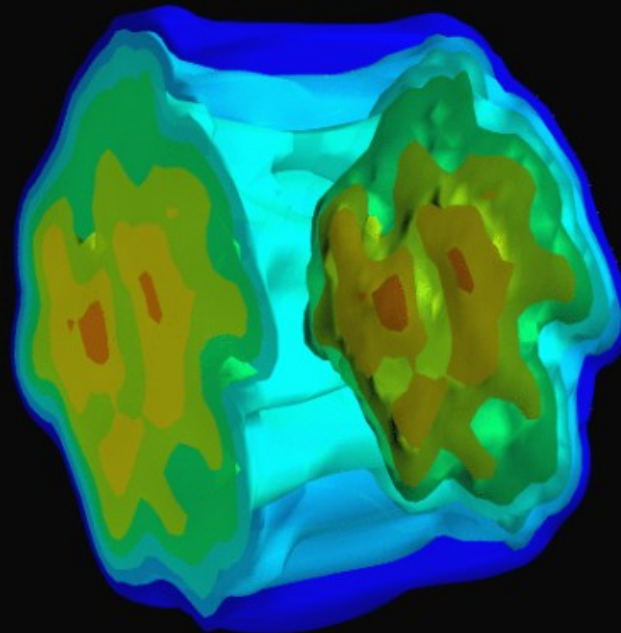
MUSIC visc hydro  $t \sim 1.5$  fm/c



MUSIC visc hydro  $t \sim 3$

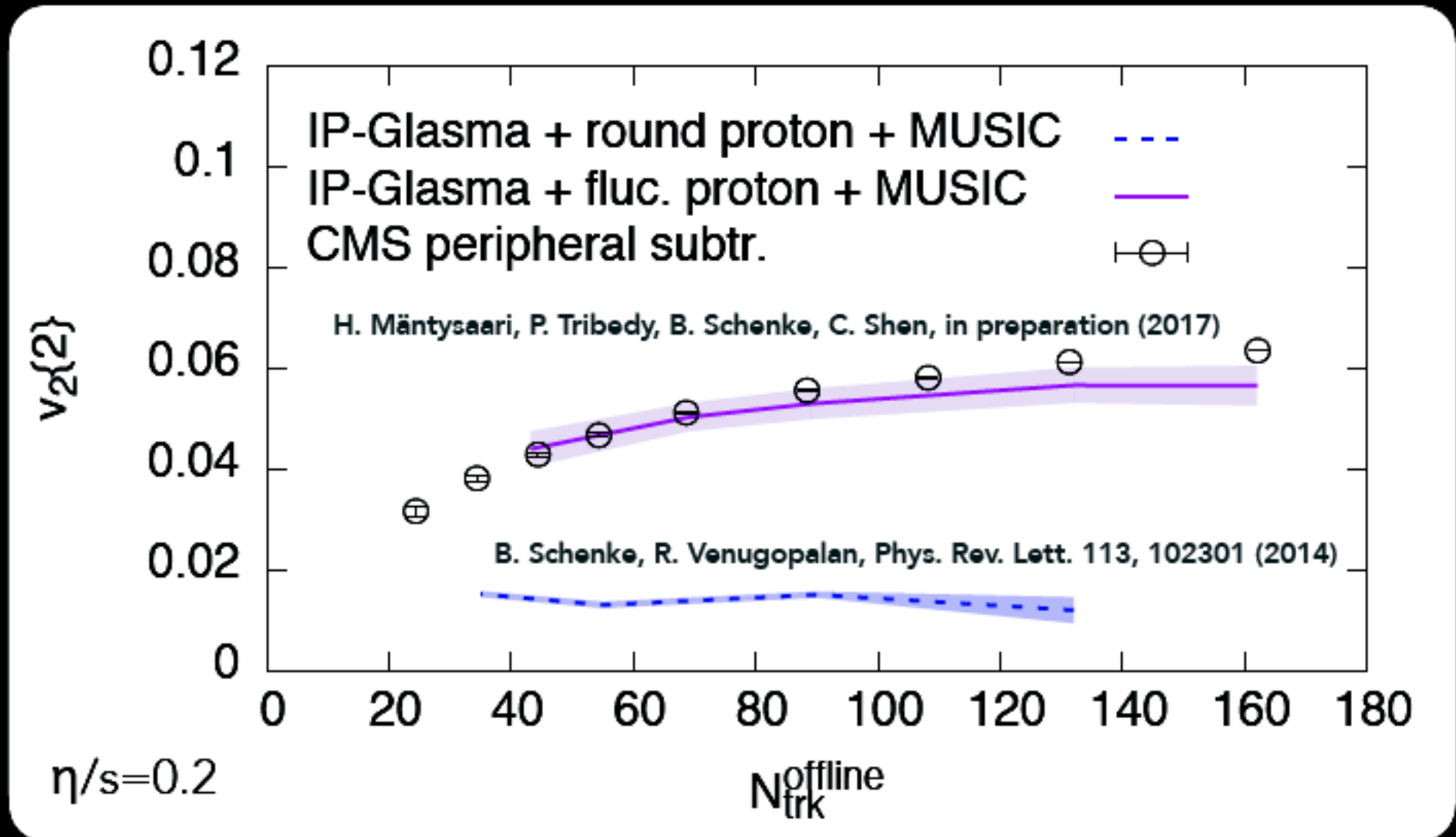


MUSIC visc hydro  $t \sim 5$



# EFFECT OF FLUCTUATING PROTON

Constrained proton fluctuations compatible with p+A



# QM2017 Zimanyi Award Medal and Check



Zimanyi  
Physics Foundation



Two thousand dollars

\$ 2000

For **Björn Schenke**

Who is the Winner of Zimányi Medal 2017

**Congratulations Bjorn !**

