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Title:

PROBING the Big BANG at The Relativistic Heavy Ion Collider

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Intended for:

Symmetry and Structural Properties of Condensed Matter.



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## Probing the Big Bang at the Relativistic Heavy Ion Collider

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**Abstract.** The Relativistic Heavy Ion Collider (RHIC) at the Brookhaven National Laboratory in the USA is a variable energy proton-proton and ion-ion collider that is the first accelerator capable of colliding heavy ions. RHIC was designed to do experiments that provide important information about the standard model of particle physics, Quantum Chromodynamics(QCD). QCD predicts that in the early part of the Universe just after the Big Bang the world consisted of a Quark Gluon Plasma, a weakly interacting collection of quarks and gluons. At RHIC we can recreate the conditions of the Universe by colliding heavy ions at 200 GeV. This talk will discuss the physics motivation for studying the QGP, how our experiments are designed to study the QGP, what we have learned over the last 9 years, and what the future holds.

## Announcement

The Tenth International School on Theoretical Physics

**Symmetry and Structural Properties of Condensed Matter**

(SSPCM'2009)

2 - 9 September 2009, Myczkowce, Poland

<http://www.sspcm.wikidot.com>

### Second Announcement

According to the tradition of this series of Schools (SSPCM) we aim to provide participants with a survey of recent achievements and problems connected with adequate description of condensed matter structure in terms of appropriate mathematical tools. During the tenth SSPCM'2009 we shall discuss the following topics:

- Information processing, entanglement, and tensor calculus
- Integrable models and unitary symmetry
- Finite systems and nanophysics

### Tentative list of Invited Speakers

- J. Barnaś (Poznań)
- W.J. Caspers (Enschede)
- D. Chruscinski (Torun)
- G.H.E. Douchamp (Paris)
- B. Fiedler (Leipzig)

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- J.P. Gazeau (Paris)
- A. Jamiolkowski (Torun)
- J. Karwowski (Torun)
- D.M. Lee (Los Alamos)
- A. Lehmann-Szweykowska (Poznan)
- J.D. Louck (Los Alamos)
- W. Majewski (Gdansk)
- J.F. McCabe (New York)
- C. Munoz (Madrid)
- R. Micnas (Poznan)
- A. Okopinska (Kielce)
- K. Penson (Paris)
- A. Radosz (Wroclaw)
- J. Rembielinski (Lodz)
- W. Sikora (Krakow)
- M. Szopa (Katowice)
- R. Tanas (Poznan)
- A. Theophilou (Athens)
- V. R. Vieira (Lisboa)
- A. Vourdas (Bradford)
- R. Wojciechowski (Poznan)
- A. Wojs (Wroclaw)
- J. Zak (Haifa)
- J. Zaremba (Torun).
- E. Zipper (Katowice)
- K. Zyczkowski (Cracow)

## International Advisory Committee

- W.J. Caspers (Enschede)
- R. Dirl (Wien)
- J.P. Gazeau (Paris)
- J. Karwowski (Torun)
- R.C. King (Southampton)
- J.D. Louck (Los Alamos)
- J. Morkowski (Poznan)
- K. Penson (Paris)
- V.I. Yukalov (Dubna)
- A. Vourdas (Bradford)

## Local Organizing Committee

- T. Lulek (chairman)
- B. Lulek
- M. Inglot
- D. Jakubczyk
- S. Wolski,
- A.Wal (secretary).

## Registration

We kindly ask to fill in the registration form on our conference pages:  
<http://www.sspcm.wikidot.com>

## Contributions and Publications

Invited and contributed lectures are assumed up to 45 and 20 minutes respectively. Abstracts of all lectures will

be included in the booklet to be distributed at the School. All papers will be subject to a standard refereeing procedure (peer review) before publication (up to 15 pages for a plenary lectures and 6 pages for a contribution on a paper of size A4). The reviewed papers will be published in the 'Journal of Physics: Conference Series'. We kindly request authors to send us short abstracts by June 30, 2009.

Authors are kindly asked to bring manuscripts of their lectures to the School, or sent them to the organizers before. We expect papers in electronic and printed version. The deadline for manuscripts of lectures is September 3, 2009 (for reason of refereeing procedure).

## Deadlines

- Abstracts - June 30, 2009,
- Applications (if no paper submitted)- July 15, 2009,
- The manuscripts - September 3, 2009,

## Location and Transportation

The School will be held in the hotel "Energetyk" in Myczkowce near Lesko, a little village placed at a dam on the river San and Myczkowce Lake, surrounded by the picturesque landscape of Undercarpatia hills in the south-eastern part of Poland.

Address:

Hotel Center "Energetyk"

Myczkowce

38-623 Uherce

tel +48 13 4618031

fax. +48 13 4618519

## Travel

Connections between Warsaw and Krakow are available by several Inter and Euro-City trains (it takes 3 hours) or by plane (it takes 40 minutes). Connections between Warsaw and Rzeszow are available by express train (it takes 5 hours) and plane (40 minutes). Some travelers may find it more convenient to approach Krakow or Rzeszow strictly by plane (available some connections with Europe and the States).

Organizers will provide a bus on Wednesday, 2 September 2009 from Rzeszow to Myczkowce at 6.30 p.m. (the contact point in Rzeszow is Rzeszow University of Technology, Chair of Physics, al. Powstancow Warszawy 6, room 36, ground floor, since 9 a.m.) and from Cracow to Myczkowce at 3 p.m. (the contact point in Cracow is Faculty of Physics and Applied Computers Sciences, AGH - University of Science and Technology, ul. Reymonta 19, room 001, ground floor, since 9 a.m.). Registration in "Energetyk" hotel in Myczkowce starts since 6 p.m. on Wednesday, 2 September 2009. The late supper will be served that day.

A return bus (to Cracow via Rzeszow) will be provided on Wednesday, 9 September, approx. 10 a.m. (the contact point in Cracow, AGH University - ul. Reymonta 19, room 001, ground floor, will be open since 12 till 5 p.m.).

## Registration fee

Registration fee covers costs of Proceedings and all of local expenses.

1700 PLN - payment by June 30, 2009

1800 PLN - payment after June 30, 2009

For student and accompanying persons

1500 PLN - payment by June 30, 2009

1600 PLN – payment after June 30, 2009

Fees are payable for the Bank account:

Bank name : Bank PEKAO SA II O /Rzeszow

Bank address: ul. 3 Maja 21, 35-959 Rzeszow, Poland

Account number :

(for domestic transfers) 2912 4026 141111 0000 3958 6445

(for transfers from abroad) PL 2912 4026 141111 0000 3958 6445

SWIFT code: PKOPPLPW

Account owners : Politechnika Rzeszowska, ul.W.Pola 2 , 35-959 Rzeszow, Poland  
with an adnotation: SSPCM09

Please indicate "SSPCM09" when paying. Thank you

Please send all correspondence to:

Michal Inglot

Rzeszow University of Technology,

Chair of Physics

ul. Powstancow Warszawy 6

35-959 Rzeszow

or to

[sspcm@prz.edu.pl](mailto:sspcm@prz.edu.pl)

The School is organized by  
**Rzeszów University of Technology, Poland**  
**AGH - University of Science and Technology, Cracow, Poland**

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