Electromagnetic Probes of Strongly Interacting Matter: Status and Future of Low-Mass Lepton-Pair Spectroscopy

Trento, May 20 - 24, 2013

Main topics:

- Thermal radiation of dileptons and photons from the QGP and hot hadronic matter
- In-medium modifications of hadrons in dense matter: relation to the QCD phase structure in particular to the chiral phase transition
- Systematic discussion of measurements of photons and dileptons such as the p_T and mass spectra at the various beam energies.

The experimental situation

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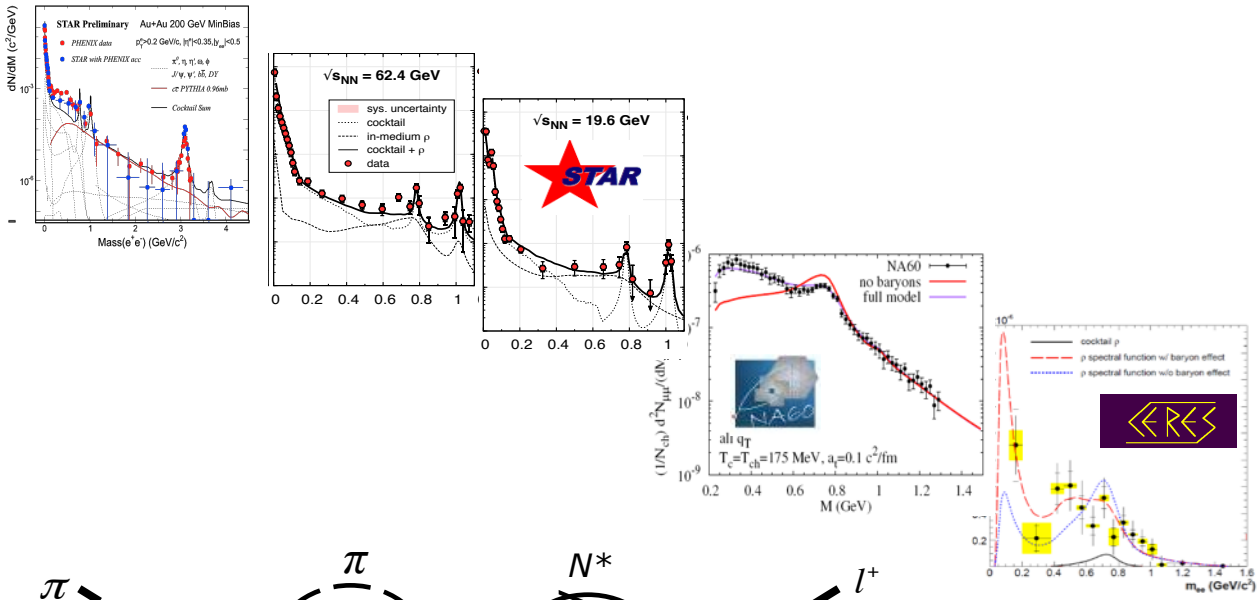
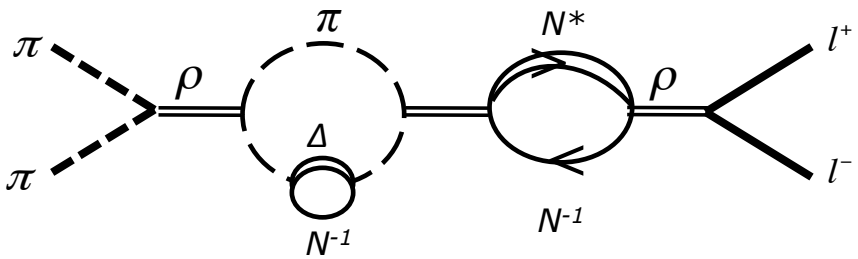
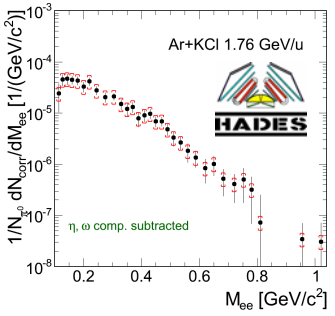


Model: Ralf Rapp
STAR: QM2012,
NA60: EPJC 59 (2009) 607,
CERES: Phys. Lett. B 666 (2006) 425,
HADES: Phys.Rev.C84 (2011) 014902



- Highly interesting results from RHIC, SPS, SIS18
  → importance of baryons!
- … even at RHIC/LHC with low net baryon density
  → reason: $(n_B + n_{\bar{B}})$ elevant!



μ_B

- Bangs shock tail
- lattice spectral function
- Hang together or hang separately
- Viscous hydro
- V_2 ~~from to~~ for photons.

THE

BARYONS STRIKES BACK

30th ANNIVERSARY

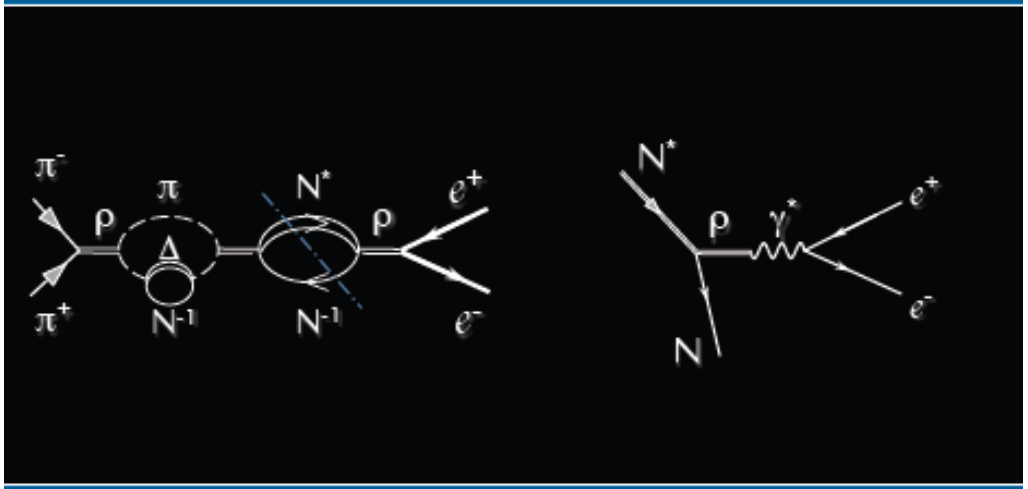
Helmholtz Alliance
Extremes of Density and Temperature: Cosmic Matter in the Laboratory

ExtreMe Matter Institute EMMI

EMMI Rapid Reaction Task Force

Emissivity of matter under extreme conditions, dileptons and chiral symmetry: established connections and missing links

October 5-15, 2013, GSI, Darmstadt, Germany



Key Topics

- Baryon resonances: present status and understanding of vector-meson (mainly rho)-resonance couplings
- Electromagnetic transition form factors of baryonic resonances in the time- and space-like regions: theoretical treatment and experimental approaches
- Dielectron and photon radiation from dense nuclear matter
- New theoretical developments in the context of electromagnetic decays of baryonic resonances

Information

http://www.gsi.de/emmi/rrtf

Organizers

Tetyana Galatyuk, TU Darmstadt
Piotr Salabura, Jagiellonian University, Kraków
Joachim Stroth, Frankfurt University

Symposium

October 9th, 2013; 10:00 a. m.
GSI, Lecture Hall (KBW)

More about EMMI

www.gsi.de/emmi

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