

Curriculum Vitae
Dr. Stefan Bathe
Postgraduate Researcher
University of California at Riverside

General:

Name: Dr. Stefan Bathe
Address: P. O. Box 802 - Upton, NY 11973 - USA
Phone: +1-631-344-7394
E-mail: bathe@bnl.gov

Research Interests:

Experimental nuclear and high-energy physics.

Current Research:

02/03–present Postgraduate Researcher at the University of California at Riverside, USA, stationed at Brookhaven National Laboratory (BNL), Supervisors: K. N. Barish and R. K. Seto.
1998–present Member of the PHENIX Collaboration at Brookhaven National Laboratory, Upton, NY, USA, Spokesperson: W. A. Zajc.
1995–present Member of the WA98 Collaboration at CERN, Geneva, Switzerland, Spokesperson: T. C. Awes.

Previous Employment:

11/02–01/03 Postgraduate Researcher at the University of Münster, Germany, Supervisor: R. Santo.
06/97–10/02 Research and Teaching Assistant at the University of Münster, Supervisor: R. Santo.

Academic Education:

10/02 Ph. D. received:
“Event-by-Event Fluctuations and Production of Neutral Pions in Ultra-Relativistic Heavy-Ion Reactions.”
1997–2002 Ph. D. Student in physics at the University of Münster, Germany, Thesis advisor: R. Santo.
09/98–10/02 Several Research Visits to BNL.
10/98–11/98 Research Visit to Tsukuba University, Japan.
05/97 *Diplom* degree granted.
10/95–04/97 *Diplomarbeit* in Münster and at CERN:
“Streamer-Tube Efficiencies in WA98,”
Thesis advisor: R. Santo
1991–1997 *Diplomstudium* in physics at the University of Münster.

Scholarships:

02/99–08/99 DAAD Scholarship of the German Service for Foreign Academic Exchange.
12/97–11/01 Graduate Fellowship of the State Nordrhein-Westfalen, Germany.

Research Experience:

Since July 2005, have served as **co-convenor of Photon Physics Working Group in PHENIX** and as such responsible for scientific quality of results obtained in this group. Term started with preparation for Quark Matter 2005 conference.

Since graduation, have specialized in physics of particle production at high transverse momentum. Significantly contributed to **analysis of both neutral pion and direct photon production** in collision systems $p + p$, $d+Au$, and $Au+Au$ for various collision energies.

Performed **calibration and maintenance of electromagnetic calorimeter (EMCal)** as well as **installation, setup, and maintenance of EMCAL-RICH trigger**. EMCAL is primary device for measuring photons and plays key particle-identification role for electron-positron-pair program.

For thesis work, analyzed **neutral pion spectra** measured in first PHENIX run. Particle production at large transverse momentum found to be suppressed in central $Au+Au$ collisions, suggesting formation of dense partonic matter.

Together with BNL technical staff, **installed lead glass detector** (part of EMCAL) and **served as local contact person** for remote institutions operating the detector. In **beam test of EMCAL at CERN** measured detector response to high-energy particles.

In **WA98**, concentrated on **event-by-event fluctuations** of mean transverse momentum of photons measured by lead glass calorimeter. Such fluctuations expected to accompany QCD phase transition.

For *Diplomarbeit*, worked on **development and installation of streamer-tube detectors** and **measured their efficiency** for charged-particle detection. Streamer-tube detectors served as charged-particle-veto detector for **WA98 lead glass calorimeter**.