

Joe, Becker

*University of Colorado
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Education

- 2005–2012 **Bachelor of Arts**, *University of Colorado at Boulder, USA*.
- Physics, over all GPA: 3.0/4.0.
- 2005–2012 **Bachelor of Arts**, *University of Colorado at Boulder, USA*.
- Mathematics, over all GPA: 3.1/4.0.
- 2001–2005 **International Baccalaureate High School Diploma**, *Poudre High School, USA*.

Academic Background

- Physics Advanced Physics/Optics Lab, Junior Level Electronics Lab, Quantum Mechanics, Electricity and Magnetism, Classical Mechanics, Thermodynamics, Error Analysis, Solid State Physics, General Relativity
- Mathematics Calculus, Mathematical Analysis, ODE & PDE, Complex Analysis, Fourier Analysis, Linear Algebra, Probability Theory, Mathematical Statistics
- Computer Science Data Structures, Algorithms

Experience

- 2006–2008 **Research Assistant**, *University of Colorado at Boulder: High Energy Physics BaBar Group*, Professors James G. Smith & William T. Ford.
- Performed data analysis for the BaBar collaboration.
- Measured quasi-two-body decays $B^0 \rightarrow a_0(1450)^- \pi^+$, $B^0 \rightarrow a_0(1450)^- K^+$, and $B^0 \rightarrow \eta \rho^0$
- 2011 **Summer Internship**, *Tech-X Corporation*, Peter Stoltz Ph.D.
- Conducted a verification study on Nautilus, the fluid plasma modeling software.
- Data analysis using python specifically in the NumPy, SciPy, Matplotlib environment.
- 2012–Present **Research Assistant**, *Liquid Crystal Materials Research Center*, Professors Noel Clark, Matthew Glaser, & Joseph MacLennan.
- Designed and conducted scientific measurements on free-suspended liquid crystal films.
- Data analysis on experimental data using Python, Mathematica, MatLab, & Origin 9

Publications

- 2007 **The BABAR Collaboration, B. Aubert, et al**, "Search for Neutral B-Meson Decays to $a_0 \pi$, $a_0 K$, $\eta \pi$, and $\eta \rho$ ", Phys. Rev D **75**, 111102 (2007).

Computer skills

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|---------------|-----------------------------------------------------------|-------------|---------------------------------------------------|
| OS | Linux/Unix, Windows, DOS | Programming | C/C++, Python, Perl |
| Scientific | Matlab, Maple, Mathematica, Matplotlib, LabView, Origin 9 | Typography | L ^A T _E X, Microsoft Office |
| Miscellaneous | Precision Machining | | |

