



## Patricia Burchat

The Gabilan Professor

Physics

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### Bio

#### BIO

Prof. Burchat grew up in a very large family in a very small town in Canada. She is passionate about teaching and instilling enthusiasm for science in her students. At Stanford, she has received the Dean's Award for Distinguished Teaching and the Walter J. Gores Award for excellence in teaching. She is a Fellow of the American Physical Society and has received a Guggenheim Fellowship. She is past-Chair of the National Organizing Committee for the APS Conferences for Undergraduate Women in Physics.

Professor Burchat's research interests focus on fundamental questions in physics: What is the Universe made of? What are the laws of physics that govern the constituents of the Universe? She is interested in studying the Universe at both the smallest and the largest scales. She has used accelerators to probe the elementary particles and the fundamental interactions; her current focus is on using telescopes to investigate the cosmological evolution of the Universe.

Prof. Burchat is a member of an international collaboration preparing for operation of a telescope that will provide the most complete census of the Universe to date -- the Large Synoptic Survey Telescope which is under construction in Chile and is scheduled to see "first light" around 2020. Prof. Burchat's group works within the LSST Dark Energy Science Collaboration to prepare to fully optimize the use of the gravitational bending of light by "dark matter" to study the evolution of "dark energy". In the past, she worked with colleagues at Stanford to measure the masses of giant clusters of galaxies using images from the Subaru Telescope in Hawaii.

Professor Burchat has been a key player in a number of accelerator-based particle physics experiments: Mark II at the SLAC Linear Collider, E791 at Fermilab, and BABAR at SLAC. Each of these experiments probed the fundamental interactions, especially the "weak" interaction. The research of Burchat's group in these experiments included pioneering studies of the neutral carrier of the weak interaction (the  $Z^0$ ), searches for heavy neutral leptons, precision studies of semileptonic decays of charm mesons, searches for and discovery of charm mixing, and detailed studies of differences in the way matter and antimatter evolve in time (CP violation in B meson decays).

#### ACADEMIC APPOINTMENTS

- Professor, Physics

#### ADMINISTRATIVE APPOINTMENTS

- Full Professor, Department of Physics, Stanford University, (2000- present)
- Associate Professor, Department of Physics, Stanford University, (1995-2000)
- Associate Professor, Department of Physics, University of California, Santa Cruz, (1992-1994)
- Assistant Professor, Department of Physics, University of California, Santa Cruz, (1988-1992)

- Postdoctoral Research Physicist, Santa Cruz Institute for Particle Physics, University of California, Santa Cruz, (1986-1988)
- Fellow, American Association for the Advancement of Science, (2012-2012)
- Guggenheim Fellowship, John Simon Guggenheim Memorial Foundation, (2005-2005)
- Fellow in Undergraduate Education, Sapp Family University, (2004-2004)
- Fellow, American Physical Society, (2001-2001)

## **HONORS AND AWARDS**

- Judith Pool Award, Northern California Chapter of the Association for Women in Science (2010)
- Sapp Family University Fellow in UG Education, Stanford University (2009)
- Walter J. Gores Award, Stanford University (2007)
- Gabilan Professorship, Stanford University (2006)
- Dean's Award, Stanford University (1997)

## **BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS**

- Co-Director (with Prof. Mark Cappelli) of Engineering Physics program, Stanford University (2012 - present)
- Member, Undergraduate Studies Committee, Stanford University (2012 - present)
- Undergraduate Major Advisor in Physics, Stanford University (2012 - present)
- Pre-major advisor for Engineering Physics program, Stanford University (2012 - 2013)
- Member, Fundamental Particles and Interactions Faculty Search, Stanford University (2012 - 2013)
- Member of ad hoc committee to write memo to H&S, Stanford University (2012 - 2013)
- Member of ad hoc committee to write memos to VPUE and H&S, Stanford University (2012 - 2013)
- Member of ad hoc committee to meet with Registrar, Stanford University (2012 - 2013)
- Member of tenure evaluation committee for Risa Wechsler, Stanford University (2012 - 2013)
- Member, Advisory Board to the President, Stanford University (2012 - 2013)
- Faculty lead on redesigning the Physics Web site, Stanford University (2011 - 2012)
- Chair, Physics Department, Stanford University (2007 - 2010)
- Chair, National Organizing Committee for the APS Conferences for Undergraduate Women in Physics (2012 - 2013)
- Member, LSST Institutional Board (2012 - 2013)
- Member, LSST Executive Board (2012 - 2013)
- Member, LSST Admissions Committee (2012 - 2013)
- Manager, LSST Publication (2012 - 2013)
- Member, LSST Dark Energy Science Collaboration Executive Board (2012 - 2013)
- Member, BABAR Publication Board (2012 - 2013)
- Member, BABAR Executive Committee (2012 - 2013)
- Deputy Director, Kavli Institute for Particle Astrophysics and Cosmology (KIPAC) (2012 - 2013)
- Member, KIPAC Strategic Planning Committee (2012 - 2013)
- Chair, OIR subgroup (2012 - 2013)
- Member, KIPAC Executive Committee (2012 - 2013)

## **PROFESSIONAL EDUCATION**

- B.S. Applied Sci. & Engineering, University of Toronto , Engineering Science (1981)

- Ph.D, Stanford University , Physics (1986)

## Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Professor Burchat's research interests focus on fundamental questions in physics: What is the Universe made of? What are the laws of physics that govern the constituents of the Universe? She is interested in studying the Universe at both the smallest and the largest scales. She has used accelerators to probe the elementary particles and the fundamental interactions; her current focus is on using telescopes to investigate the cosmological evolution of the Universe.

Prof. Burchat is a member of an international collaboration preparing for operation of a telescope that will provide the most complete census of the Universe to date -- the Large Synoptic Survey Telescope. The LSST is a 8.4-meter ground-based telescope with a 10-square-degree field of view that will survey the Universe with an unprecedented combination of breadth (coverage of the entire night-sky approximately every three nights) and depth (sensitivity to matter densities up to seven billion light-years away). The LSST camera is a 3.2 Gigapixel CCD array, which will be read out in approximately 2 seconds, every 15 seconds, generating tens of terabytes of data each night. The telescope is under construction on Cerro Pachon, an 8,800-foot mountain peak in northern Chile. The telescope is scheduled to see "first light" around 2020.

Prof. Burchat's group works within the LSST Dark Energy Science Collaboration to prepare to fully optimize the use of the gravitational bending of light by "dark matter" to study the evolution of "dark energy" -- shedding light on the identity of these components that make up the majority of the energy density of the Universe. The group works on developing a deep understanding of effects that have the potential to limit our sensitivity to cosmology with LSST: from understanding and correcting for the impact of turbulence in the atmosphere on image quality, to challenges of image analysis at the high number density of galaxies in LSST images.

In the past, she worked with colleagues at Stanford to measure the masses of giant clusters of galaxies using images from the Subaru Telescope in Hawaii.

## Teaching

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### COURSES

#### 2018-19

- Mechanics and Special Relativity: PHYSICS 61 (Aut)

#### 2017-18

- Mechanics and Special Relativity: PHYSICS 61 (Aut)
- Quantum Mechanics I: PHYSICS 130 (Win)

#### 2016-17

- Mechanics and Special Relativity: PHYSICS 61 (Aut)
- Quantum Mechanics I: PHYSICS 130 (Win)

#### 2015-16

- Quantum Mechanics I: PHYSICS 130 (Win)

### STANFORD ADVISEES

#### Doctoral Dissertation Advisor (AC)

Sowmya Kamath

## Publications

### PUBLICATIONS

- **Robust weak-lensing mass calibration of Planck galaxy clusters** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*  
von der Linden, A., Mantz, A., Allen, S. W., Applegate, D. E., Kelly, P. L., Morris, R. G., Wright, A., Allen, M. T., Burchat, P. R., Burke, D. L., Donovan, D., Ebeling, H.  
2014; 443 (3): 1973-1978
- **Weighing the Giants - II. Improved calibration of photometry from stellar colours and accurate photometric redshifts** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*  
Kelly, P. L., von der Linden, A., Applegate, D. E., Allen, M. T., Allen, S. W., Burchat, P. R., Burke, D. L., Ebeling, H., Capak, P., Czoske, O., Donovan, D., Mantz, A., Morris, et al  
2014; 439 (1): 28-47
- **Impact of chromatic effects on galaxy shape measurements** *JOURNAL OF INSTRUMENTATION*  
Meyers, J. E., Burchat, P. R.  
2014; 9
- **Weighing the Giants - III. Methods and measurements of accurate galaxy cluster weak-lensing masses** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*  
Applegate, D. E., von der Linden, A., Kelly, P. L., Allen, M. T., Allen, S. W., Burchat, P. R., Burke, D. L., Ebeling, H., Mantz, A., Morris, R. G.  
2014; 439 (1): 48-72
- **Weighing the Giants - I. Weak-lensing masses for 51 massive galaxy clusters: project overview, data analysis methods and cluster images** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*  
von der Linden, A., Allen, M. T., Applegate, D. E., Kelly, P. L., Allen, S. W., Ebeling, H., Burchat, P. R., Burke, D. L., Donovan, D., Morris, R. G., Blandford, R., Erben, T., Mantz, et al  
2014; 439 (1): 2-27
- **Study of radiative bottomonium transitions using converted photons** *PHYSICAL REVIEW D*  
Lees, J. P., Poireau, V., Prencipe, E., Tisserand, V., Tico, J. G., Grauges, E., Martinelli, M., Milanese, D. A., Palano, A., Pappagallo, M., Eigen, G., Stugu, B., Sun, et al  
2011; 84 (7)
- **Studies of  $\tau(-) \rightarrow \eta K - \nu(\tau)$  and  $\tau(-) \rightarrow \eta \pi(-) \nu(\tau)$  at BABAR and a search for a second-class current** *PHYSICAL REVIEW D*  
Sanchez, P. d., Lees, J. P., Poireau, V., Prencipe, E., Tisserand, V., Tico, J. G., Grauges, E., Martinelli, M., Palano, A., Pappagallo, M., Eigen, G., Stugu, B., Sun, et al  
2011; 83 (3)
- **Measurement of Semileptonic B Decays into Orbitally Excited Charmed Mesons** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Karyotakis, Y., Lees, J. P., Poireau, V., Prencipe, E., Prudent, X., Tisserand, V., Tico, J. G., Grauges, E., Lopez, L., Palano, A., Pappagallo, et al  
2009; 103 (5)
- **Search for CPT and lorentz violation in  $B-0-(B)\text{over-bar}(0)$  oscillations with dilepton events** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Tico, J. G., Grauges, E., Lopez, L., Palano, et al  
2008; 100 (13)
- **Radiation monitoring with CVD diamonds and PIN diodes at BaBar** *6th International Conference on Radiation Effects on Semiconductor Materials, Detectors, and Devices*  
Bruinsma, M., Burchat, P., Curry, S., Edwards, A. J., Kagan, H., Kass, R., Kirkby, D., MAJEWSKI, S., Petersen, B. A.  
ELSEVIER SCIENCE BV.2007: 162-64
- **Measurement of the time-dependent CP asymmetry in  $B-0 \rightarrow D(\text{CP})(*)h(0)$  decays** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Tico, J. G., Grauges, E., Lopez, L., Palano, et al  
2007; 99 (8)
- **Measurement of CP-Violating asymmetries in  $B-0 \rightarrow (DD -/+)-D-(*)+/-$**  *PHYSICAL REVIEW LETTERS*

- Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Tico, J. G., Grauges, E., Lopez, L., Palano, et al  
2007; 99 (7)
- **Production and decay of Omega(0)c** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Garra Tico, J., Grauges, E., Lopez, L., Palano, et al  
2007; 99 (6)
  - **Search for the rare decay B -> pi l(+)(-)** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Tico, J. G., Grauges, E., Lopez, L., Palano, et al  
2007; 99 (5)
  - **Branching fraction and CP-violation charge asymmetry measurements for B-meson decays to eta K-+/-, eta pi(+/-), eta ' K, eta 'pi(+/-), omega K, and omega pi(+/-)** *PHYSICAL REVIEW D*  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Tico, J. G., Grauges, E., Lopez, L., Palano, et al  
2007; 76 (3)
  - **Measurement of decay amplitudes of B -> J/psi K-\*, psi(2S)K-\*, and chi K-c1(\*) with an angular analysis** *PHYSICAL REVIEW D*  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Tico, J. G., Grauges, E., Lopez, L., Palano, et al  
2007; 76 (3)
  - **Evidence for D-0-(D)over-bar(0) mixing** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Tico, J. G., Grauges, E., Lopez, L., Palano, et al  
2007; 98 (21)
  - **Measurement of branching fractions and mass spectra of B -> K pi pi gamma** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Barate, R., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Pappagallo, M., Pompili, et al  
2007; 98 (21)
  - **Evidence of a broad structure at an invariant mass of 4.32 GeV/c(2) in the reaction e(+)(e(-)->pi(+)(pi(-)psi(2S) measured at BABAR** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Barate, R., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, et al  
2007; 98 (21)
  - **Measurements of CP-violating asymmetries in B-0 -> a(1)(+/-)(1260)pi(+/-) decays** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 98 (18)
  - **Measurement of the B-+/- -> rho(+/-) pi(0) branching fraction and direct CP asymmetry** *PHYSICAL REVIEW D*  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 75 (9)
  - **Evidence for the rare decay B+ -> D-s(+) pi(0)** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 98 (17)
  - **Branching fraction measurements of B+ -> rho(+)(gamma), B-0 -> rho(0)(gamma), and B-0 -> omega gamma** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 98 (15)
  - **Measurement of the pseudoscalar decay constant f(Ds) using charm-tagged events in e(+)(e(-) collisions at root s=10.58.GeV** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Barate, R., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Pappagallo, et al  
2007; 98 (14)

- **Study of inclusive B- and (B)over-bar(0) decays to flavor-tagged D, D-s, and Lambda(+)(c) PHYSICAL REVIEW D**  
Aubert, B., Barate, R., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Pappagallo, et al  
2007; 75 (7)
- **Evidence for B-0 ->rho(0)rho(0) decays and implications for the Cabibbo-Kobayashi-Maskawa angle alpha PHYSICAL REVIEW LETTERS**  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 98 (11)
- **Measurement of the B-0 ->pi(-)l(+)nu form-factor shape and branching fraction, and determination of |V-ub| with a loose neutrino reconstruction technique PHYSICAL REVIEW LETTERS**  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 98 (9)
- **Measurements of Lambda(+)(c) branching fractions of Cabibbo-suppressed decay modes involving Lambda and Sigma(0) PHYSICAL REVIEW D**  
Aubert, B., Barate, R., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Pappagallo, M., Pompili, et al  
2007; 75 (5)
- **Measurement of B decays to phi K gamma PHYSICAL REVIEW D**  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 75 (5)
- **Observation of decays B-0 -> D-s(\*)pi(-) and B-0 -> Ds(\*)K+ PHYSICAL REVIEW LETTERS**  
Aubert, B., Barate, R., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, et al  
2007; 98 (8)
- **Search for lepton flavor violating decays tau(+/-)-> l(+/-)pi(0),l(+/-)eta,l(+/-)eta ' PHYSICAL REVIEW LETTERS**  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 98 (6)
- **Vector-tensor and vector-vector decay amplitude analysis of B-0 ->phi K\*0 PHYSICAL REVIEW LETTERS**  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 98 (5)
- **Measurement of the CP asymmetry and branching fraction of B-0 ->rho K-0(0) PHYSICAL REVIEW LETTERS**  
Aubert, B., Barate, R., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, et al  
2007; 98 (5)
- **Observation of B ->eta ' K-\* and evidence for B+>eta ' p(+) PHYSICAL REVIEW LETTERS**  
Aubert, B., Barate, R., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, et al  
2007; 98 (5)
- **Branching fraction measurement of (B)over-bar(0)-> D(\*)+pi(-) and B-> D-(\*)0 pi(-) and isospin analysis of (B)over-bar -> D-(\*)pi decays PHYSICAL REVIEW D**  
Aubert, B., Barate, R., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, et al  
2007; 75 (3)
- **Search for the reactions e(+)(e-) -> mu(+)(tau)(-) and e(+)(e-) -> e(+)(tau)(-) PHYSICAL REVIEW D**  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 75 (3)
- **Observation of CP violation in B ->eta/K-0 decays PHYSICAL REVIEW LETTERS**  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 98 (3)
- **Observation of a charmed baryon decaying to D(0)p at a mass near 2.94 GeV/c(2) PHYSICAL REVIEW LETTERS**  
Aubert, B., Barate, R., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Pappagallo, et al  
2007; 98 (1)

- **Inclusive  $\Lambda^+(c)$  production in  $e^+e^-$  annihilations at  $\sqrt{s}=10.54$  GeV and in  $Y(4S)$  decays** *PHYSICAL REVIEW D*  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2007; 75 (1)
- **Improved measurements of the branching fractions for  $B^0 \rightarrow \pi^+ \pi^-$  and  $B^0 \rightarrow K^+ \pi^-$ , and a search for  $B^0 \rightarrow K^+ K^-$**  *PHYSICAL REVIEW D*  
Aubert, B., Barate, R., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, et al  
2007; 75 (1)
- **Measurements of branching fraction, polarization, and charge asymmetry of  $B^+ \rightarrow \rho^+ f(0)$  and a search for  $B^+ \rightarrow \rho^+ f(0)(980)$**  *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2006; 97 (26)
- **Observation of  $B^+ \rightarrow \pi^+ \pi^+ K^+$  and evidence for  $B^0 \rightarrow \pi^+ \pi^+ K^0$  below  $\eta(c)$  threshold** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2006; 97 (26)
- **BABAR silicon vertex tracker: Status and prospects** *14th International Workshop on Vertex Detectors*  
Re, V., Bondioli, M., Bruinsma, M., Curry, S., Kirkby, D., Berryhill, J., Burke, S., Callahan, D., Campagnari, C., Cunha, A., Dahmes, B., Hale, D., Kyre, et al  
ELSEVIER SCIENCE BV.2006: 1-4
- **Observation of an excited charm baryon  $\Omega_c^*(c)$  decaying to  $\Omega_c(0)\gamma$**  *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2006; 97 (23)
- **Observation of the exclusive reaction  $e^+e^- \rightarrow \pi^+ \eta$  at  $\sqrt{s}=10.58$  GeV** *PHYSICAL REVIEW D*  
Aubert, B., Bona, M., Boutigny, D., Karyotakis, Y., Lees, J. P., Poireau, V., Prudent, X., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2006; 74 (11)
- **Measurement of the absolute branching fractions  $B \rightarrow D \pi$ ,  $D^* \pi$ ,  $D^{**} \pi$  with a missing mass method** *PHYSICAL REVIEW D*  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2006; 74 (11)
- **Measurement of branching fractions and charge asymmetries in B decays to an  $\eta$  meson and a  $K^*$  meson** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, J. C., Qi, et al  
2006; 97 (20)
- **Measurements of branching fractions, polarizations, and direct CP-violation asymmetries in  $B \rightarrow \rho K^*$  and  $b \rightarrow f(0)(980)K^*$  decays** *PHYSICAL REVIEW LETTERS*  
Aubert, B., Barate, R., Bona, M., Boutigny, D., Couderc, F., Karyotakis, Y., Lees, J. P., Poireau, V., Tisserand, V., Zghiche, A., Grauges, E., Palano, A., Chen, et al  
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