

**SELECTED PUBLICATIONS - Principal, Co-principal Author, or Editorial Board**

(List of all publications available separately)

Richard J. Van Kooten

**P1. Higgs Physics at the Linear Collider.**

John F. Gunion, Howard E. Haber, Rick Van Kooten. UCD-02-18, Jan. 2003. 97 pp., to appear in "Linear Collider Physics in the New Millennium," edited by K. Fujii and A. Soni (World Scientific), e-Print Archive: hep-ph/0301023.

**P2. A Search for the Scalar Top Quark in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV.**

The DØ Collab., V.M. Abazov *et al.*, *Phys. Rev. Lett.* **88** (2002) 171802, e-Print Archive: hep-ex/0108018.

**P3. † Status of D0 for B Physics.**

R. Van Kooten for the D0 Collaboration, to appear in the proceedings of Flavor Physics and CP Violation (FPCP), Philadelphia, Pennsylvania, 16-18 May 2002. e-Print Archive: hep-ex/0207096.

**P4. † B Physics at the Tevatron: Run II and Beyond.**

K. Anikeev *et al.*, SLAC-REPRINT-2001-056, FERMILAB-PUB-01-197, Dec 2001, e-Print Archive: hep-ph/0201071.

**P5. Search for Large Extra Dimensions in Dielectron and Diphoton Production.**

The DØ Collab, B. Abbott *et al.*, *Phys. Rev. Lett.* **86** (2001) 1156, e-Print Archive: hep-ex/0008065.

**P6. Linear Collider Physics Resource Book for Snowmass 2001. Part 2, Higgs and Supersymmetry Studies**

American Linear Collider Working Group (T. Abe *et al.*). SLAC-R-570, SLAC-R-0570, SLAC-570, SLAC-0570, BNL-52627, CLNS-01-1729, FERMILAB-PUB-01-058-E, LBNL-47813, UCRL-ID-143810-DR, LC-REV-2001-074-US, Jun 2001. 185pp. e-Print Archive: hep-ex/0106056 (co-author of Higgs Physics chapter).

**P7. Linear Collider Physics Resource Book for Snowmass 2001. Part 4, Theoretical, Accelerator, and Detector Options**

American Linear Collider Working Group (T. Abe *et al.*). SLAC-R-570, SLAC-R-0570, SLAC-570, SLAC-0570, BNL-52627, CLNS-01-1729, FERMILAB-PUB-01-058-E, LBNL-47813, UCRL-ID-143810-DR, LC-REV-2001-074-US, Jun 2001. 130pp. e-Print Archive: hep-ex/0106058 (co-author of detector chapter).

**P8. Cosmic Ray Tests of the DØ Preshower Detector.**

P. Baringer *et al.*, *Nucl. Instr. and Meth.* **A469** (2001) 295.

**P9. † The Case for a 500 GeV  $e^+e^-$  Linear Collider.**

American Linear Collider Working Group, J. Bagger *et al.*, SLAC-PUB-8495, BNL-67545, FERMILAB-PUB-00-152, LBNL-46299, UCRL-ID-139524, LBL-46299, Jul 2000, e-Print Archive: hep-ex/0007022.

**P10. Search for Chargino and neutralino Production at  $\sqrt{s} = 189$  GeV at LEP**

The OPAL Collab., G. Abbiendi *et al.*, *Eur. Phys. J.* **C14** (2000) 187.

**P11. †  $b$  Quark Physics from OPAL.**

Published in Proceedings of the Workshop on Physics with a high luminosity polarized electron ion collider (EPIC '99), p. 362. IUCF, Bloomington, IN.

**P12. Measurement of the Average Polarization of  $b$  Baryons in Hadronic  $Z^0$  Decay.**

The OPAL Collab., G. Abbiendi *et al.*, *Phys. Lett.* **B444** (1998) 539.

**P13. † Measurement of the  $b$ -Baryon Polarization in  $Z$  Decays.**

Published in Proceedings of the 29th International Conference in High Energy Physics (ICHEP '98), World Scientific (1999), p. 1229.

**P14. Search for Chargino and Neutralino Production at  $\sqrt{s} = 181$ – $184$  GeV at LEP.**

The OPAL Collab., G. Abbiendi *et al.*, *Eur. Phys. J.* **C8** (1999) 255.

- P15. **Search for an Excess in the Production of Four-Jet Events from  $e^+e^-$  Collisions at  $\sqrt{s} = 130 - 184$  GeV.** The OPAL Collab., K. Ackerstaff *et al.*, *Phys. Lett.* **B429** (1998) 399.
- P16. **Search for Chargino and Neutralino Production at  $\sqrt{s} = 170$  and  $172$  GeV at LEP.** The OPAL Collab., K. Ackerstaff *et al.*, *Eur. Phys. J.* **C2** (1998) 213.
- P17. **The Extended OPAL Silicon Strip Microvertex Detector.** S. Anderson, J.R. Batley, G.A. Beck, T. Behnke, M. Bobinski, A.A. Carter, J.R. Carter, S.J. de Jong, U.C. Dunwoody, V. Gibson, W. Glessing, M.J. Goodrick, E. Gross, R. Hammarstrom, G.G. Hanson, M. Hapke, A.K. Honma, F. Jacob, M. Jiminez, C.R. Jones, P. Jovanovic, T. Junk, P. Kyberd, J.A. Lauber, A.J. Martin, A. McNab, R. Mir, K. Muhlemann, T.W. Pritchard, D.R. Rust, **R. Van Kooten**, *Nucl. Instr. and Meth.* **A403** (1998) 326.
- P18. † **Weakly Coupled Higgs Bosons and Precision Electroweak Physics.** Howard E. Haber (UC, Santa Cruz), Tao Han (UC, Davis), Frank S. Merritt (Chicago U.), John Womersley (Fermilab), U. Baur (SUNY, Buffalo), M. Demarteau (Fermilab), C. Kao (Wisconsin U., Madison), P.C. Rowson (SLAC), J.F. Gunion (UC, Davis), **R. Van Kooten** (Indiana U.), L. Poggioli (CERN), SCIPP-97-03, published in *New Directions for High Energy Physics: Proceedings of the 1996 DPF/DPB Summer Study on High-Energy Physics (Snowmass 96)* (SLAC 1997), e-print Archive: hep-ph/9703391.
- P19. † **Higgs Boson Discovery and Properties.** J.F. Gunion, L. Poggioli, and **R. Van Kooten**, UCD-97-5 published in *New Directions for High Energy Physics: Proceedings of the 1996 DPF/DPB Summer Study on High-Energy Physics (Snowmass 96)* (SLAC 1997), e-print Archive: hep-ph/9703330.
- P20. **Search for Charged Scalar Leptons Using the OPAL Detector at  $\sqrt{s} = 161$  GeV.** The OPAL Collab., K. Ackerstaff *et al.*, *Phys. Lett.* **B396** (1997) 301.
- P21. **Searches for Supersymmetric Particles and Anomalous Four-Jet Production at  $\sqrt{s} = 130$  and  $136$  GeV at LEP.** The OPAL Collab., G. Alexander *et al.*, *Z. Phys.* **C73** (1997) 201.
- P22. **Bounding CPT Violation in the Neutral  $B$  System.** V. Alan Kostelecky and **R. Van Kooten**, *Phys. Rev.* **D54** (1996) 5585.
- P23. **Search for Chargino and Neutralino Production in  $e^+e^-$  Collisions at  $\sqrt{s} = 161$  GeV.** The OPAL Collab., K. Ackerstaff *et al.*, *Phys. Lett.* **B389** (1996) 616.
- P24. † **Physics and Technology of the Next Linear Collider**, S. Kuhlman *et al.* (authored section *Higgs Boson Searches and Properties* with P.C. Rowson), A Report Submitted to Snowmass '96, SLAC Report 485, Fermilab-PUB-96/112.
- P25. **Search for Chargino and Neutralino Production Using the OPAL Detector at  $\sqrt{s} = 130-136$  GeV at LEP.** The OPAL Collab., G. Alexander *et al.*, *Phys. Lett.* **B377** (1996) 181.
- P26. † **Lifetimes and Mixing of Beauty Hadrons.** Published in Proceedings of *Physics in Collision 15*, 8-10 June 1995, Cracow, Poland, ed. M. Rózańska and K. Rybicki (World Scientific, 1996), ISBN: 981-02-2587
- P27. † **Physics at LEP2**, eds. G. Altarelli, T. Sjöstrand, and F. Zwirner, contributions to chapter *New Particle Searches*, CERN Yellow Report CERN 96-01.
- P28. † **Physics and Experiments with Linear Colliders, LCWS95**, eds. A. Miyamoto, Y. Fujii, T. Matsui, and S. Iwata, contribution *Higgs Physics at  $e^+e^-$  Linear Colliders: Experimental*, World Scientific (1996), ISBN: 981-02-2701-9.
- P29. **Measurement of the Average  $b$ -Baryon Lifetime and the Product Branching Ratio  $f(b \rightarrow \Lambda_b) \cdot BR(\Lambda_b \rightarrow \Lambda \ell^- \bar{\nu}_X)$ .** The OPAL Collab., R. Akers *et al.*, *Z. Phys.* **C69** (1995) 195.
- P30. **A Measurement of the Average Lifetime of  $b$ -flavoured Baryons.** The OPAL Collab., R. Akers *et al.*, *Phys. Lett.* **B316** (1993) 435.
- P31. † **Lifetimes of Exclusive Beauty States at LEP.** Published in Proceedings of Results and Perspectives in Particle Physics, 7-13 March 1993, La Thuile, Italy,

ed. M. Greco (Editions Frontieres, 1993), p.259

**P32. Measurement of  $\Gamma(Z^0 \rightarrow b\bar{b})/\Gamma(Z^0 \rightarrow \text{hadrons})$  Using Leptons.**

The OPAL Collab., P. Acton *et al.*, *Z. Phys.* **C58** (1993) 523.

**P33. The Detector Simulation for the OPAL Experiment at LEP.**

J. Allison *et al.*, *Nucl. Instr. and Meth.* **A317** (1992) 47.

**P34. † Performance of the OPAL Jet Chamber.**

Presented at the 1992 Wirechamber Conference Vienna, Austria, 17-21 February 1992.

Published in *Nucl. Instr. and Meth.* **A323** (1992) 169.

**P35. A Measurement of Electron Production in Hadronic  $Z^0$  Decays and a**

**Determination of  $\Gamma(Z^0 \rightarrow b\bar{b})$ .** The OPAL Collab., P. Acton *et al.*, *Z. Phys.* **C55** (1992) 191.

**P36. † The Third Family at LEP.**

Presented at the XI International Conference on Physics in Collision, Colmar, France, June 20-22, 1991.

Published in *Physics in Collision 11*, eds. J. Brom *et al.*, Edition Frontieres, France (1991) p. 175.

**P37. † Searches for New Particles Produced in  $Z$  Boson Decay.**

The MARK II Collab., R. Van Kooten, *et al.*

Presented at 15th APS Div. of Particle and Fields General Mtg., Houston, TX, Jan 3-6, 1990.

Published in Proceedings of the Rice Meeting, 1990 Mtg. of the Division of Particles and Fields, eds. B. Bonner and H. Miettinen (World Scientific 1990).

**P38. † Searches for New Quarks and Leptons in  $Z$  Boson Decays.**

R. Van Kooten (SLAC & Stanford U., Phys. Dept.)

SLAC-Report-367, UMI-91-02366, Ph.D. Thesis, June 1990.

**P39. Search for Long-lived Massive Neutrinos in  $Z$  Decays.**

The MARK II Collab., C.K. Jung, **R. Van Kooten**, *et al.*, *Phys. Rev. Lett.* **64** (1990) 1091.

**P40. Searches for New Quarks and Leptons Produced in  $Z$  Boson Decay.**

The MARK II Collab., G.S. Abrams *et al.*, *Phys. Rev. Lett.* **63** (1989) 2447.

**P41. Particle Identification using  $dE/dx$  in the Mark II Detector at the SLC.**

A. Boyarski, D. Coupal, G.J. Feldman, G. Hanson, J. Nash, K.F. O'Shaughnessy, P. Rankin, **R. Van Kooten** (SLAC), Presented at 5th Int. Wire Chamber Conf., Vienna, Austria, Feb 13-17, 1989.

Published in *Nucl. Instr. and Meth.* **A283** (1989) 617.

**P42. † Opportunities and Requirements for Experimentation at a Very High-Energy  $e^+e^-$  Collider.**

By Changrim Ahn, T. Barklow, D.L. Burke, A.R. Cooper, Claudio Dib, G.J. Feldman, T. Himel, Sachio Komamiya, Michael E. Peskin, A. Petersen, **R. Van Kooten** (SLAC), P. Burchat, Howard E. Haber (UC, Santa Cruz), J.F. Gunion (UC, Davis), B.W. Lynn (Stanford U., Phys. Dept.). Published in report SLAC-0329, May 1988.

**P43. † Searching for Fourth Generation Fermions at High-Energy  $e^+e^-$  Machines.**

J. Dorfan and **R. Van Kooten**, Presented at 1st Int. Symp. on the 4th Family of Quarks and Leptons, Santa Monica, CA, Feb 26-28, 1987.

Published in Ann. N. Y. Acad. Sci. Vol. 518, 319, 1987.