

# After the $\psi$

SLAC-LBL Group Publications: November 1974 through October 1977

## Key

Number by submission date; Title; Lead authors; Date submitted; Date published; Reference; Number of citations.

## QED

1; Measurement of  $e^+e^- \rightarrow e^+e^-$  and  $e^+e^- \rightarrow \mu^+\mu^-$ ; ; 11-Nov-1974; 27-Jan-1975; PRL 34, 233; 137.

## Charmonium

2; Discovery of a Narrow Resonance in  $e^+e^-$  Annihilation; ; 13-Nov-1974; 2-Dec-1974; PRL 33, 1406; 2916.

3; Discovery of a Second Narrow Resonance in  $e^+e^-$  Annihilation; ; 25-Nov-1974; 9-Dec-1974; PRL 33,1453; 822.

4; Total Cross Section for Hadron Production by Electron-Positron Annihilation between 2.4 and 5.0 Gev Center-of-Mass Energy; ; 6-Jan-1975; 24-Mar-1975; PRL 34, 764; 327.

5; Search for Narrow Resonances in  $e^+e^-$  Annihilation in the Mass Region 3.2 to 5.9 GeV; ; 13-Jan-1975; 24-Mar-1975; ;PRL 34, 762; 73.

6; Decay of  $\psi(3684)$  into  $\psi(3095)$ ; ; 17-Mar-1975; 5-May-1975; PRL 34, 1181; 122

7; Quantum Numbers and Decay Widths of the  $\psi(3095)$ ; ; 7-Apr-1975; 26-May-1975; PRL 34, 1357; 226.

9; Quantum Numbers and Decay Widths of the  $\psi(3684)$ ; Vera Lüth; 4-Aug-1975; 27-Oct-1975; PRL 35, 1124; 111.

10;  $\psi(3684)$  Radiative Decays to High-Mass States; Gary Feldman, Bernard Jean-Marie, Bernard Sadoulet, Francois Vannucci; 11-Aug-1975; 29-Sep-1975; PRL 35, 821; 181

13; Observation of an Intermediate State in  $\psi(3684)$  Radiative Cascade Decay; William Tanenbaum, John Whitaker; 15-Sep-1975; 17-Nov-1975; PRL 35, 1323; 128.

15; Determination of the G Parity and Isospin of the  $\psi(3095)$  by Study of Multipion Decays; Bernard Jean-Marie; 1-Dec-1975; 9-Feb-1976; PRL 36, 291; 68

16; Observation of the Decay  $\psi(3684) \rightarrow \psi(3095) \eta$ ; William Tanenbaum; 5-Jan-1976; 23-Feb-1976; PRL 36, 402; 62  
 17; Observation of a Resonance at 4.4 GeV and Additional Structure near 4.1 GeV in  $e^+e^-$  Annihilation; James Siegrist; 24-Feb-1976; 29-Mar-1976; PRL 36, 700; 187.  
 21; Radiative Decays of  $\psi(3095)$  and  $\psi(3684)$ ; John Whitaker, William Tanenbaum; 21-Sep-1976; 13-Dec-1976; PRL 37, 1596; 95  
 24; Mesonic Decays of the  $\psi(3095)$ ; Francois Vannucci; 3-Jan-1977; 1-Apr-1977; PRD 15, 1814; 88  
 28; Observation of a Resonance in  $e^+e^-$  Annihilation Just above Charm Threshold; Petros Rapidis, Bruno Gobbi, Dieter Lüke; 27-Jun-1977; 29-Aug-1977; PRL 39, 526; 258.  
 31; Radiative Decays of the  $\psi(3684)$  into High-Mass States; William Tanenbaum, George Trilling, John Whitaker; 3-Aug-1977; 1-Apr-1978; PRD 17, 1731; 83

## Charm

8; Limits on Charmed-Meson Production in  $e^+e^-$  Annihilation at 4.8 GeV Center-of-Mass Energy; ; 12-May-1975; 28-Jul-1975; PRL 35, 196; 69.  
 18; Observation in  $e^+e^-$  Annihilation of a Narrow State at 1865 MeV/c<sup>2</sup> Decaying into  $K\pi$  and  $K\pi\pi$ ; Gerson Goldhaber, Francois Pierre; 14-June-1976; 2-Aug-1976; PRL 37, 255; 762.  
 20; Observation of a Narrow Charged State at 1876 MeV/c<sup>2</sup> Decaying to an Exotic Combination of  $K\pi\pi$ ; Ida Peruzzi, Marcello Piccolo, Gary Feldman, H. K. Nguyen, James Wiss; 21-Jul-1976; 6-Sep-1976; PRL 37, 569; 520.  
 22; Evidence for Parity Nonconservation in the Decay of the Narrow States near 1.87 GeV/c<sup>2</sup>; James Wiss, Gerson Goldhaber; 8-Oct-1976; 9-Dec-1976; PRL 37, 1531; 107.  
 25; Observation of the Decay  $D^{*+} \rightarrow D^0\pi^+$ ; Gary Feldman, Ida Peruzzi, Marcello Piccolo; 7-Apr-1977; 6-Jun-1977; PRL 38,1313; 161.  
 26; Spin Analysis of Charmed Mesons Produced in  $e^+e^-$  Annihilation; H. K. Nguyen, James Wiss; 6-Jun-1977; 1-Aug-1977; PRL 39, 262; 52.  
 27;  $K^0$  Production in  $e^+e^-$  Annihilation; Vera Lüth, Francois Pierre; 6-Jun-1977; 12-Sep-1977; PL 70B, 120; 78.  
 30;  $D$  and  $D^*$  Meson Production near 4 GeV in  $e^+e^-$  Annihilation; Gerson Goldhaber, James Wiss; 7-Jul-1977; 29-Aug-1977; PL 69B, 503; 206.  
 32;  $D$  Meson Production and Decay in  $e^+e^-$  Annihilation at 4.03 and 4.41 GeV C. M. Energy; Marcello Piccolo, Ida Peruzzi, Vera Lüth, H. K. Nguyen, James Wiss; 23-Jul-1977; 26-Sep-1977; PL 70B, 260; 75.  
 35; Study of  $D$  Mesons Produced in the Decay of the  $\psi(3772)$ ; Ida Peruzzi, Marcello Piccolo, Gary Feldman, Pierre Lecomte, Vincent Vuillemin; 19-Sep-1977; 21-Nov-1977; PRL 39, 1301; 199.  
 36; Inclusive Baryon Production in  $e^+e^-$  Annihilation; Marcello Piccolo, Ida Peruzzi, Dieter Lüke, Vera Lüth, Burton Richter; 21-Oct-1977; 12-Dec-1977; PRL 39, 1503; 78.

37; Observation of  $D^0$  Meson Decay into  $K^-\pi^+\pi^0$ ; Daniel Scharre; 6-Oct-1977; 9-Jan-1978; PRL 40, 74; 85.

38; Measurement of Semileptonic Decays of  $D$  Mesons to Electrons at the  $\psi(3772)$ ; Joseph Feller, Alan Litke, Ronald Madaras, Michael Ronan; 25-Oct-1977; 30-Jan-1978; PRL 40, 274; 96.

## QCD

11; Azimuthal Asymmetry in Inclusive Hadron Production by  $e^+e^-$  Annihilation; Roy Schwitters, Francois Pierre; 18-Aug-1975; 17-Nov-1975; PRL 35, 1320; 149.

14; Evidence for Jet Structure in Hadron Production by  $e^+e^-$  Annihilation; Gail Hanson; 8-Oct-1975; 15-Dec-1975; PRL 35, 1609; 774.

## $\tau$ Lepton

12; Evidence for Anomalous Lepton Production in  $e^+e^-$  Annihilation; Martin Perl; 18-Aug-1975; 1-Dec-1975; PRL 35, 1489; 1929.

19; Properties of Anomalous  $e\mu$  Events Produced in  $e^+e^-$  Annihilation; Martin Perl, Gary Feldman; 15-Jul-1976; 16-Aug-1976; PL 63B, 466; 396.

23; Inclusive Anomalous Muon Production in  $e^+e^-$  Annihilation; Gary Feldman, Fatin Bulos, Dieter Lüke; 8-Nov-1976; 17-Jan-1977; PRL 38, 117; 161.

29; Electron-Muon and Electron-Hadron Production in  $e^+e^-$  Collisions; Angela Barbaro-Galtieri, B. P. Kwan, Alan Litke; 6-Jul-1977; 24-Oct-1977; PRL 39, 1058; 64.

33; A Search for Neutral Heavy Leptons; D. I. Meyer, H. K. Nguyen; 8-Aug-1977; 24-Oct-1977; PL 70B, 469; 21;

34; Properties of the Proposed  $\tau$  Lepton; Martin Perl, Gary Feldman; 17-Aug-1977; 24-Oct-1977; PL 70B, 487; 148.

## Other Papers Mentioned in the Talk

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T. Appelquist et al., Spectroscopy of the New Mesons, PRL 34, 365 (1975)

W. Braunschweig et al., Observation of the Two Photon Cascade  $3.7 \rightarrow 3.2 + \gamma\gamma$  via Intermediate State  $P_c$ , PL 57B, 407 (1975)

C. J. Biddick et al., Inclusive  $\gamma$ -Ray Spectra from  $\psi(3095)$  and  $\psi(3684)$  Decays, PRL 38, 1324 (1977)

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R. Partridge et al, Observation of an  $\eta_c$  Candidate State with Mass  $2978 \pm 9$  Mev, PRL 45, 1150 (1978)

C. Edwards et al., Observation of an  $\eta_c'$  Candidate State with Mass  $3592 \pm 5$  MeV, PRL 48, 70 (1982)

C. Baglin et al., Search for the  $^1P_1$  Charmonium State in  $\bar{p}p$  Annihilations at the CERN Intersection Storage Rings, PL 171B, 135 (1986)

J. Bjorken and S. Brodsky, Statistical Model for Electron-Positron Annihilation into Hadrons, PRD 1, 1416 (1970)