## DZERO Run II Preliminary Results by Physics Groups

| DØ Archive | Publication Reference | Superceded by | Conference Note Number | Subject/Title | Date of Approval | Luminosity $pb^{-1}$ |
|---|---|---|---|---|---|---|
| ***B Physics*** | | | | | | |
| B00 | | | *4481-CONF* | Reconstruction of B hadron signals | 8/4/2004 | 250 |
| B01 | B04A | | | X(3872) observation and properties | | 230 |
| B02 | | | *4370* | Bd oscillation with opposite-side tag | 3/20/2004 | 250 |
| B03 | B04D | | *4376* | Neutral and charged B lifetime ratio | 3/29/2004 | 250 |
| B04 | | | *4367* | Bd lifetime from J/ψ Ks decay | 3/18/2004 | 114 |
| B05 | B05B | | *4371* | Semileptonic B decays to narrow D** mesons | 3/19/2004 | 250 |
| B06 | B04C | B21 | *4514-CONF* | Bs→μμ limit | 8/2/2004 | 240 |
| B07 | B04B | | *4519-CONF* | Bs lifetime from J/psi phi decays | 8/5/2004 | 220 |
| B08 | | B30 | *4517* | Study of B** | 8/1/2004 | 350 |
| B09 | B05A | | *4523* | Upsilon cross section | 8/2/2004 | 160 |
| B10 | | | *4505* | Bd oscillation with same-side tag | 7/31/2004 | 250 |
| B11 | B04E | | *4558-CONF* | Λb lifetime from J/ψ Λ decay | 8/6/2004 | 250 |
| B12 | | | *4539-CONF* | Bc meson properties | 8/16/2004 | 210 |
| B13 | | | *4581-CONF* | Reconstruction of Bs→μDsX decays | 8/24/2004 | 200 |
| B14 | | | *4524-CONF* | Reconstruction of Λb in semileptonic decays | 8/26/2004 | 350 |
| B15 | | | *4578-CONF* | Bd oscillation with 3-combined taggers | 8/30/2004 | 200 |
| B16 | B06C | | *4729-CONF* | A high statistics measurement of the Bs lifetime | 3/3/2005 | 400 |
| B17 | B05C | B36 | *4557* | Lifetime difference in the Bs system | 3/4/2005 | 450 |
| B18 | | B23 | *4732-CONF* | Sensitivity analysis of the rare decay Bs → μμφ | 3/4/2005 | 300 |
| B19 | | | *4727-CONF* | Evidence of Bs → Ds1(2536) μν X | 3/4/2005 | 490 |
| B20 | | B27 | *4724* | Bs mixing with semileptonic decays and OS tagging | 3/5/2005 | 460 |
| B21 | | | *4733-CONF* | Bs → μμ limit update | 3/9/2005 | 300 |
| B22 | | | *4731-CONF* | FCNC charm decay and Ds → φ π → π μ μ | 3/12/2005 | 540 |
| B23 | B06B | | *4862-CONF* | Search for rare decay Bs→μμφ | 6/25/2005 | 300 |
| B24 | | | *4869-CONF* | Observation of the Decay Bs→ψ(2S)φ and a measurement… | 7/15/2005 | 300 |
| B25 | | B32 | *4848-CONF* | B flavor tagging with opposite-side soft electrons | 7/18/2005 | 420 |
| B26 | | B32 | *4875* | Combined opposite-side flavor tagging | 7/18/2005 | 460 |
| B27 | | | *4881* | Bs mixing with Bs→DsμX, Ds→φπ and opposite-side tagging | 7/18/2005 | 610 |
| B28 | | | *4878-CONF* | Bs mixing with Bs→DsμX, Ds→K*K and opposite-side tagging | 7/18/2005 | 610 |
| B29 | | | *5042-CONF* | Measurement of the CP-violation parameter of $B^0$ mixing… | 3/2/2006 | 970 |
| B30 | | | *5026-CONF* | Study of Excited B Mesons | 3/3/2006 | 1000 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| B31 | | | 5027-CONF | First Direct Observation of the B^*0_2s Meson | 3/3/2006 | 1000 |
| B32 | | | 5029 | B_d Mixing Measurement Using Opposite-side Flavor Tagging | 3/4/2006 | 900 |
| B33 | | | 5038-CONF | Search for Flavor Changing Neutral Currents, D->PiMuMu | 3/10/2006 | 1000 |
| B34 | B06A | | 5045-CONF | A Study of Bs0-Bs0bar Oscillations | 3/14/2006 | 1000 |
| B35 | | | 5034-CONF | First Measurement of Br($B_s^0$->$D_{s1}^-$(2536)$\mu^+\nu$X) | 3/13/2006 | 1000 |
| B36 | | B39 | 5042 | Measurement of the Lifetime Difference in the Bs System | 3/17/2006 | 900 |
| B37 | | | 5068-CONF | Measurement of B(Bs -> Ds Ds) | 3/21/2006 | 1000 |
| B38 | | | 5009-CONF | A New Expected Upper Limit for the Rare Decay Bs->MuMu | 3/21/2006 | 1000 |
| B39 | | | 5144-CONF | Lifetime Difference and Mixing Phase in the Bs System | 7/20/2006 | 1000 |
| B40 | | | 5143-CONF | Measurement of the time-integrated untagged decay rate asymmetry i | 7/21/2006 | 1000 |
| B41 | | | 5189-CONF | Combination of D0 Results on CP Violating Phase of the Bs System | 7/21/2006 | 1000 |
| B42 | | | 5174-CONF | Bs Mixing in Bs → Ds+e+X, Ds→$\phi\pi$ Decay Mode | 7/21/2006 | 1000 |
| B43 | | | 5172-CONF | Bs Mixing studies with Bs → Ds+$\mu$+X (Ds→K*K) Decay… | 7/21/2006 | 1000 |
| B44 | | | 5207 | Combination of Bs-Bsbar Oscillation Results from D0 | 7/21/2006 | 1000 |
| B45 | | | | Measurement of the Lambda_B lifetime in the decay channel J/Psi(mu | 8/18/2006 | 1000 |
| ***Electroweak*** | | | | | | |
| E01 | | E09 | | Measurement of W$\gamma$ cross section... | 3/20/2004 | 160 |
| E02 | E04B | | 4526-CONF | Measurement of $\sigma$(ppbar→Z) Br(Z→$\tau\tau$)… | 8/2/2004 | 210 |
| E03 | E04A | | 4542 | Measurement of WW cross section in dilepton final… | 8/3/2004 | 250 |
| E04 | E05A | | 4488 | Measurement of Z$\gamma$ cross section | 8/6/2004 | 180 |
| E05 | | E10 | 4569-CONF | Search for WZ production in trilepton final state | 8/12/2004 | 170 |
| E06 | | | 4403-CONF | Measurement of W→e$\nu$ and Z→ee cross sections | 8/12/2004 | 180 |
| E07 | | | 4573 | Measurement of inclusive Z→$\mu\mu$ cross section… | 8/11/2004 | 150 |
| E08 | | | 4563-CONF | Direct measurement of the W boson width… | 8/23/2004 | 180 |
| E09 | E05B | | 4685-CONF | Wg cross section and anomalous coupling limits | 2/1/2005 | 160 |
| E10 | E05C | | 4649-CONF | WZ cross section and anomalous coupling limits | 2/1/2005 | 300 |
| E11 | | | 4750 | W cross section in muon channel | 3/10/2005 | 96 |
| E12 | | | | Z→ee rapidity distribution | 3/14/2005 | 340 |
| E13 | | | 4757-CONF | Z→ee differential cross section and FB asymmetry | 3/11/2005 | 180 |
| E14 | | | 5061-CONF | A Measurement of the W->$\mu$n Charge Asymmetry… | 3/13/2006 | 230 |
| E15 | | | 5110-CONF | Measurement of the WZ Diboson Production Cross Section in Trilepto | 6/22/2006 | 760-880 |
| E16 | E06B | | 5160-CONF | Limits on Anomalous Trilinear Gauge Couplings from WW->ee, WW-> | 6/23/2006 | 230 |
| E17 | | | 5156-CONF | Study of Z($\gamma$) → ee($\gamma$) Events in D0 RunII p17 Data | 7/25/2006 | 1000 |

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|---|---|---|---|---|---|---|
| E18 | | | | Measurement of the Z Boson Transverse Momentum… | 7/25/2006 | 960 |
| ***Higgs*** | | | | | | |
| H01 | | H08 | *4366-CONF* | Search for neutral Higgs bosons in multi-jet events | 3/17/2004 | 130 |
| H02 | | | *4374-CONF* | Search for non-SM Higgs boson in $\gamma\gamma$ channel | 3/18/2004 | 190 |
| H03 | | H09 | *4387* | Search for H→WW* in dilepton final state | 3/24/2004 | 180 |
| H04 | H04C | | *4388* | Measurement of Zb/Zj cross section ratio | 3/29/2004 | 180 |
| H05 | H04B | H12 | *4399-CONF* | Search for Wbb and WH production | 3/29/2004 | 170 |
| H06 | H04A | | | Search for doubly-charged Higgs boson in $\mu\mu\mu\mu$… | | 110 |
| H07 | | | *4579-CONF* | Search for techni-rho and techni-pionn in electron channel | 8/26/2004 | 240 |
| H08 | H05A | H23 | *4718-CONF* | Search for neutral Higgs bosons in multi-jet events | 2/24/2005 | 260 |
| H09 | H05B | H16 | *4760-CONF* | Search for H→WW* in dilepton final state | 3/14/2005 | 300 |
| H10 | | H17 | *4774-CONF* | Search for SM Higgs in ZH→$\nu\nu$bb final state | 4/11/2005 | 260 |
| H11 | H06D | | *4794-CONF* | Z(→ee)+n-jet cross section ratios | 4/22/2005 | 340 |
| H12 | | H18 | *4896-CONF* | Search for Wbb and WH in electron channel | 5/16/2005 | 382 |
| H13 | H06C | | *4861-CONF* | Search for Higgs bosons in WH→WWW*→like sign dilepton final stat | 7/7/2005 | 370 |
| H14 | H06A | | *5028-CONF* | Search for Neutral Higgs Bosons Decaying to Tau Pairs… | 3/9/2006 | 350 |
| H15 | | | *5066-CONF* | Z+jets in the D0 Detector: A comparison, Sherpa v. Pythia | 3/17/2006 | 950 |
| H16 | | | *5063-CONF* | Search for the Higgs Boson in H->WW->ll' Decay… | 3/17/2006 | 950 |
| H17 | H06B | | *5060-CONF* | Search for SM Higgs in ZH→$\nu\nu$bb final state | 3/18/2006 | 260 |
| H18 | | | *5054-CONF* | A Search for WH Production | 3/19/2006 | 380 |
| H19 | | | *5056-CONF* | Limits on Standard Model Higgs Boson Production | 3/19/2006 | varies |
| H20 | | | *5154-CONF* | Search for Techniparticles at D0 | 7/3/2006 | 390 |
| H21 | | | *5194-CONF* | Search for the Higgs Boson in H→WW→$\mu\nu\mu\nu$ + X Decay… | 7/20/2006 | 930 |
| H22 | | | *5205-CONF* | Evidence for Z->bb Decays at D0 | 7/25/2006 | 300 |
| H23 | | | *5503-CONF* | Search for Neutral Higgs Bosons at High tan($\beta$) in Multijet Events | 7/25/2006 | 900 |
| H24 | | | | Search for Neutral Higgs Bosons at High tan(b) in the b(h/H/A)->btaut | 7/25/2006 | 340 |
| H25 | | | *5186-CONF* | Search for ZH(->llbb) Production… | 7/25/2006 | 320 - 390 |
| H26 | | | | Combined D0 and CDF Upper Limit on SM Higgs Boson Production | 7/25/2006 | 300-1000 |
| ***New Phenomena*** | | | | | | |
| N01 | | N39 | *4336-CONF* | Large extra dimension in the diEM channels | 2/25/2004 | 200 |
| N02 | | | *4349-CONF* | TeV-1 extra dimension in the dielectron channel | 3/17/2004 | 200 |
| N03 | | | *4375-CONF* | Heavy Z' bosons in the dielectron channel | 3/17/2004 | 200 |

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|---|---|---|---|---|---|---|
| N04 | N04A | | | GMSB supersymmetry in diphoton events | | 263 |
| N05 | | N31 | *4380-CONF* | Squarks and gluinos in the jets+MET topology | 4/1/2004 | 85 |
| N06 | | | *4400* | Large extra dimension in jets+MET | 3/19/2004 | 85 |
| N07 | N04C | | *4401* | First general leptoquarks | 3/18/2004 | 175 |
| N08 | | (N25) | *4543* | Chargino/neutralino in eμ+l final states | 8/4/2004 | 240 |
| N09 | | N45 | *4404-CONF* | mSUGRA supersymmetry in the like-sign dimuon… | 5/25/2004 | 150 |
| N10 | | N46 | *4537-CONF* | Chargino/neutralino in ee+l final states | 8/5/2004 | 250 |
| N11 | | N25 | *4546-CONF* | Chargino/neutralino in lll final states (combined) | 8/5/2004 | 147-250 |
| N12 | N05B | | *4484-CONF* | Randall-Sundrum gravitons in dielectron channel | 8/1/2004 | 200 |
| N13 | N06C | | *4522-CONF* | RPV supersymmetry in ee+l final states | 8/4/2004 | 240 |
| N14 | | (N25) | *4482-CONF* | Chargino/neutralino in μμ+l final states | 8/3/2004 | 220 |
| N15 | N06D | | *4535-CONF* | Resonant slepton production via the LQD coupling | 8/10/2004 | 150 |
| N16 | N06C | | *4490-CONF* | RPV supersymmetry in μμ+l final states | 8/4/2004 | 160 |
| N17 | N05B | N49 | *4533-CONF* | Randall-Sundrum gravitons in diEM channel | 8/9/2004 | 200 |
| N18 | N04B | | *4572-CONF* | Anomalous heavy-flavor in association with W boson | 8/11/2004 | 145-164 |
| N19 | N05C | | *4576-CONF* | Large extra dimension in the dimuon channel | 8/12/2004 | 250 |
| N20 | | | *4577-CONF* | Heavy Z' bosons in the dimuon channel | 8/12/2004 | 250 |
| N21 | | | *4580-CONF* | Scalar leptoquarks in the acoplanar jet topology | 8/24/2004 | 85 |
| N22 | | | *4561-CONF* | Technicolor rho and omega in the dielectron channel | 8/6/2004 | 200 |
| N23 | | | *4552-CONF* | Quark-Electron compositeness in dielectron channel | 10/18/2004 | 270 |
| N24 | N06C | | *4595-CONF* | RPV SUSY: eet final state (l133 coupling) | 2/1/2005 | 200 |
| N25 | N05A | | *4738-CONF* | Search for chargino/neutralino with three leptons | 3/2/2005 | 320 |
| N26 | | | *4922-CONF* | Lepton-quark compositeness in dimuon channel | 3/3/2005 | 400 |
| N27 | | | *4746-CONF* | Charged massive stable particles | 3/3/2005 | 390 |
| N28 | | | *4741-CONF* | Chargino/neutralino search with eτ+l | 3/4/2005 | 325 |
| N29 | | | *4742-CONF* | Chargino/neutralino search with mτ+l | 3/4/2005 | 325 |
| N30 | | | *4740-CONF* | Chargino/neutralino search: combination with taus | 3/4/2005 | 325 |
| N31 | N06A | | *4737-CONF* | Squarks and gluinos in the jets+MET topology | 3/4/2005 | 310 |
| N32 | N05D | | *4829-CONF* | Pair production of 2nd generation LQ | 6/17/2005 | 300 |
| N33 | | | | CDF and DØ GMSB combination | 4/1/2005 | 260 |
| N34 | N06H | | *4832-CONF* | Search for direct production of scalar bottom quarks | 6/24/2005 | 310 |
| N35 | | | *4866-CONF* | Search for the lightest stop in bbμμνν final state | 7/12/2005 | 340 |
| N36 | | | *4893-CONF* | Search for heavy resonances decaying into Z+jets | 7/20/2005 | 380 |
| N37 | N06G | | *5023-CONF* | Search for Neutral Long Lived Particles | 2/15/2006 | 380 |
| N38 | N06B | | *5044-CONF* | Search for Excited Muons | 3/1/2006 | 390 |

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|---|---|---|---|---|---|---|
| N39 | | | 5020-CONF | Search for GMSB SUSY in Diphoton Events… | 3/9/2006 | 760 |
| N40 | | | | Search for Light Scalar Top Quark in bbeμνν | 3/9/2006 | 350 |
| N41 | N06F | | 5040-CONF | Search for Scalar Leptoquarks in Acoplanar Jet Topology | 3/10/2006 | 310 |
| N42 | | | 5058-CONF | Search for Stopped Gluinos | 3/13/2006 | 350 |
| N43 | | | 5050-CONF | Stop Search Combination Analysis: emu and mumu | 3/17/2006 | 350 |
| N44 | | | 5134-CONF | Search for Scalar Top Pair Production in the Acoplanar Jet Topology. | 6/7/2006 | 310 |
| N45 | | | 5126-CONF | Search for Associated Production of Charginos and Neutralinos in the | 6/8/2006 | 1000 |
| N46 | | | 5127-CONF | Search for Associated Production of Charginos and Neutralinos in Fin | 6/8/2006 | 1000 |
| N47 | | | 5176-CONF | Search for 3rd Generation Leptoquarks… | 7/12/2006 | 310 |
| N48 | | | 5191-CONF | Search for New Heavy Gauge Bosons Decaying in the Electron Chan | 7/20/2006 | 900 |
| N49 | | | 5195-CONF | Search for Randall-Sundrum Gravitons in Dielectron and Diphoton… | 7/25/2006 | 1000 |
| ***QCD*** | | | | | | |
| Q01 | Q04A | | 4381-CONF | Dijet azimuthal decorrelations at central rapidities | 4/7/2004 | 150 |
| Q02 | | | 4382-CONF | Inclusive jet and dijet cross section | 3/25/2004 | 140 |
| Q03 | | | 4754-CONF | High pT mu-tagged jet cross section | 3/10/2005 | 300 |
| Q04 | | Q06 | 4751-CONF | Measurement of the inclusive jet cross section | 3/14/2005 | 380 |
| Q05 | Q05A | | 4859-CONF | Isolated photon cross section in the central rapidity region… | 6/20/2005 | 320 |
| Q06 | | | 5087 | Measurement of the inclusive jet cross section... | 3/15/2006 | 800 |
| ***Top Physics*** | | | | | | |
| T01 | T05A | | | Cross Section: l+jets topological | | |
| T02 | | T23 | 4428 | Cross Section: alljet | 4/8/2004 | 162 |
| T03 | T05E | T15 | | Cross Section: dilepton topology | 3/26/2004 | 140-156 |
| T04 | | | 4528-CONF | Cross Section: eμ with SVT | 8/3/2004 | 158 |
| T05 | T05B | T18 | 4565-CONF | Cross Section: l+jets with b-tagging | 8/10/2004 | 158-169 |
| T06 | T05C | | 4545-CONF | W helicity in ttbar decays in l+jets/lifetime | 8/6/2004 | 158-169 |
| T07 | T05C | | 4549-CONF | W helicity in ttbar decays in l+jets/topo | 8/12/2004 | 158-169 |
| T08 | | T17 | 4574 | Mass: l+jets final states | 8/12/2004 | 160 |
| T09 | | T13 | 4510-CONF | Single top search | 8/13/2004 | 156-169 |
| T10 | | T14 | 4586-CONF | Br(t→Wb)/B(t→Wq) | 8/26/2004 | 158-159 |
| T11 | | T25, T26 | 4725-CONF | Measurement of the top quark mass in the dilepton… | 2/24/2005 | 230 |
| T12 | | | 4728-CONF | Top quark mass: l+jets/template | 3/1/2005 | 230 |

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|---|---|---|---|---|---|---|
| T13 | T05D, T06B | T20 | *4722-CONF* | Improved single top search | 3/4/2005 | 230 |
| T14 | T06A | | *4833-CONF* | Measurement of Br(t→Wb)/Br(t→Wq) and σ(ppbar→ttbar) | 6/16/2005 | 230 |
| T15 | | | *4850-CONF* | Cross Section: dilepton topology | 7/1/2005 | 370 |
| T16 | | T27 | *4839-CONF* | W helicity in ttbar dilepton decays | 7/5/2005 | 370 |
| T17 | | T28 | *4874-CONF* | Mass: l+jets Matrix Element | 7/18/2005 | 320 |
| T18 | | | *4888-CONF* | Cross Section: l+jets with b-tagging | 7/19/2005 | 365 |
| T19 | T06D | | *4876-CONF* | Measurement of the Charge of the Top Quark… | 10/18/2005 | 365 |
| T20 | | | *4871-CONF* | Single top search | 7/20/2005 | 370 |
| T21 | | | *4880-CONF* | Search for a ttbar Resonance | 7/21/2005 | 370 |
| T22 | | T31 | *4892* | Combination of CDF and D0 Results on the Top-Quark Mass | 7/21/2005 | varies |
| T23 | | T30 | *4879-CONF* | Measurement of the top cross section in the all jets channel | 9/12/2005 | 360 |
| T24 | | | *5031-CONF* | Measurement of the ttbar Cross Section … l+track Channel… | 3/6/2006 | 370 |
| T25 | | T33 | *5032-CONF* | Measurement of the top quark mass in the dilepton channel | 3/9/2006 | 370 |
| T26 | | T33 | *5047-CONF* | Measurement of mtop in Dilepton Events with Neutrino Weighting | 3/9/2006 | 370 |
| T27 | T06C | | *5046-CONF* | Measurement of the W Helicity in Top Decay | 3/17/2006 | 370 |
| T28 | | | *5053-CONF* | Top Quark Mass with the Matrix Element Method in l+jets | 3/17/2006 | 370 |
| T29 | | | *5024-CONF* | W' Search in the Single Top Sample | 3/16/2006 | 230 |
| T30 | | | *5057-CONF* | Measurement of the ttbar cross section ... in the multijet final state | 3/17/2006 | 360 |
| T31 | | | *5064* | Combination of CDF and D0 Results on the Top-Quark Mass | 3/19/2006 | varies |
| T32 | | | *5099-CONF* | Top Mass Measurement in the Lepton+Jets Channel Using the Ideogr | 5/25/2006 | 370 |
| T33 | | | *5152-CONF* | Top Mass Measurement in the Dilepton Channel | 6/30/2006 | 370 |
| T34 | | | *5171-CONF* | Measurement of $M_{top}$ in eμ Events with Neutrino Weighting | 7/20/2006 | 835 |
| T35 | | | *5200-CONF* | Measurement of $M_{top}$ in the eμ Channel using the Matrix Weighting Me | 7/20/2006 | 835 |