



national accelerator laboratory

TM-389
2800

LIST OF APPROVED EXPERIMENTS

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National Accelerator Laboratory

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<u>Experiment Number</u>	<u>Institutions</u>	<u>Scientific Spokesman</u>	<u>Subject</u>
1-A	Wisconsin Pennsylvania Harvard	Cline	NAL Neutrino Proposal
2-B	Michigan State Maryland Iowa State ANL, Duke, NAL Notre Dame Toronto, Wisc. Purdue	Smith	Multiparticle Interactions in 30-inch Bubble Chamber and Optical Spark Chamber Hybrid System. 30" b.c.
3	LBL	Eberhard	Search for Magnetic Monopoles at NAL
4-I	Michigan, ANL	Longo	Neutron Total Cross Sections up to 200 GeV
4-II	Michigan, ANL	Longo	Neutron-Proton Diffraction Scattering
6	Michigan, ANL	Krisch	Proton-Proton Elastic Scattering at High Transverse Momentum
7	Michigan, ANL, NAL, Purdue	Meyer	Measurement of $\pi^{\pm}p$ and p-p Differential Elastic Scattering Cross Sections from 50 to 170 GeV/c
8	Wisconsin Michigan Rutgers	Pondrom	Experiments in a Neutral Hyperon Beam
12	Ohio State Michigan State Carleton	Reay	A Study of Neutron-Proton Charge-Exchange Scattering
14	Columbia SUNY (Stony Brook)	Franzini	Proposal to Study Inelastic Proton-Proton Collisions in the Diffractive Region
19-A	Wyoming	Tompkins	A Search for Monopole Production
21	Caltech NAL	Barish	Neutrino Physics at High Energies
22	VPI, BNL	Collins	Search for Multigamma Events from Magnetic Monopole Pairs

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23-A	Washington	Rothberg	Inclusive πp and $K p$ Scattering
25-A	UCSB	Caldwell	Measurement of the Total Photo-Absorption Cross Sections
26	Cornell, UCSD, Michigan State	Chen	High Momentum Transfer Inelastic Muon Scattering and Test of Scale Invariance
27-A	Rochester, NAL Northwestern	Rosen	Study of the Coherent Dissociation of Neutrons
28	Wisconsin, CERN	Fry	Neutrino Experiment in 15-ft. Bubble Chamber
31-A	ANL, Carnegie-Mellon	Derrick	Antineutrino Experiment in 15-ft. Bubble Chamber
32	Stanford	Hofstadter	Test and Calibrate a Large NaI TANC Detector
34	Louisiana State, Max-Planck, NASA UC (Berkeley), U of Alabama, U of Arizona	Huggett	Ionization Spectrometer Test and Development
36-A	Rockefeller Rochester, NAL Dubna, USSR	Cool	Small Angle p-p Scattering
37-A	NAL, UCLA	Malamud	30" b.c. - pp at 300 GeV
45-A	NAL, Michigan	Nezrick	Neutrino Experiment in 15-ft. Bubble Chamber.
48	Yale, BNL NAL	Adair	A Measurement of the Intensity and Polarization of Muons Produced Directly by the Interactions of Protons with Nuclei
51	Northeastern, Stanford	von Goeler	Boson Production and Decay
53-A	Columbia, BNL	Baltay	Neutrino Experiment in 15-ft. Bubble Chamber with Neon
61	LBL, Harvard, ANL, Wyoming, Yale, NAL, New Mexico	Chamberlain	Proposal to Measure Polarization in Elastic Scattering at 50, 100 and 150 GeV/c
63	NAL	Walker	Survey of Particle Production in Proton Collisions at NAL

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67	Rutgers Upsala College U Ill. (Chicago Circle)	Maglic	Search for Baryon Resonances up to 10 GeV Mass Produced in $p+p \rightarrow p+MM$
69-A	Yale, NAL	Willis	Elastic Scattering of the Hadron
70	Columbia Rockefeller NAL	Lederman	Study of Lepton Pairs from Proton-Nuclear Interactions
72	BNL, Yale	Leipuner	Quark Search
74	General Elect. NAL	Fleischer	Search for Magnetic Monopoles
75	NAL	Yamanouchi	A Proposal to Search for Fractionally Charged Quarks
76	NAL	Carrigan	Search for Magnetic Monopoles
81	ANL, BNL, Chicago Carnegie-Mellon Purdue SUNY (Buffalo) Los Alamos	Kaufman	Preliminary Survey of 200-GeV Proton Interactions with Complex Nuclei
82	Chicago, SLAC UCSD, NAL	Telegdi	Investigate Regeneration of Neutral K-Mesons at Very High Energies
86-A	U of Washington Orsay	Lubatti	Study Inelastic Diffractive Processes by Observing Coherent Production of Multi-Pion Final States from He Nuclei
87-A	Columbia Hawaii Cornell, Illinois	Lee	Search for Heavy Leptons and Intermediate Bosons from Photon-Nuclei Collisions
90	Cracow	Gierula	Emulsion Experiment
94	Louisiana State	Goza	Emulsion Experiment
95-A	Johns Hopkins NAL	Cox	Proposal for Examination of Wide Angle Gamma Rays at NAL
96	Stanford U of Bari Brown, CERN ANL, Cornell MIT, NAL, Northeastern	Ritson	Focusing Spectrometer Facility

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97	NAL, Yale	Lach	Elastic Scattering of the Hyperons
98	Chicago Harvard Oxford	Mo	Muon-Proton Inelastic Scattering Experiment
100	Princeton Chicago	Piroué	Study Particle Production at High Transfer Momenta
103	U of Tennessee	King	Emulsion Experiment
104	BNL, NAL Rockefeller	Kycia	Measurement of Total Cross Sections on Hydrogen and Deuterium
105	Tata Inst.	Malhotra Ganguli	Emulsion Experiment
108	NAL	Awschalom	A Beam Dump Experiment
110B	Caltech, NAL, UCLA, U of Ill. (Chicago Circle)	Pine	Multiparticle Spectrometer
111	Caltech, LBL, NAL	Tollestrup	Propogal to Study $\pi^- p \rightarrow \pi^0 n$ and $\pi^- p \rightarrow \eta n$ at High Energy
114	SUNY (Buffalo)	Jain	Emulsion Experiment
115	LBL	Stevenson	Search for Long Lived Particles
116	Ottawa, Barcelona, McGill, NAL Toronto, Strasbourg	Hébert	Emulsion Experiment
117	Osaka City U. Hiroshima U. INS Tokyo U.	Kusumoto	Emulsion Experiment
120	Wisconsin Harvard	Cline	Early π^0 Particle Production Survey with Gas Jet Target
121-A	UC (Davis)	Lander	30" b.c. - $\pi^+ p$ at 100 GeV
125	CERN	Morrison	30" b.c. - $\pi^- p$ at 100 GeV
137	NAL, LBL, UC (Berkeley)	Huson	30" b.c. - $\pi^- p$ at 300 GeV

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138-I	Rochester Michigan	Ferbel	30" b.c. - pp at 100 GeV
138-II	Michigan Rochester	VanderVelde	30" b.c. - pp at 400 GeV
141-A	ANL, NAL, Iowa State, Michigan State, Maryland	Fields	30" b.c. - pp at 200 GeV
143	BNL	Kalbfleisch	30" b.c. - π^- p at 200 GeV
154	MIT, Brown, Ill., IIT Johns Hopkins, Rutgers-Stevens, Yale, NAL, Indiana U of Tenn.-Oak Ridge	Pless	Feasibility Study of Proportional Chamber Hybrid Systems with 30-inch b.c.
155	LBL, Hawaii	Stevenson	Construction and Test of External Muon Identifier for 15-ft. Bubble Chamber
156	U of Tokyo	Niu	Emulsion Experiment
171	U of Washington	Lord	Emulsion Experiment
172	UC (Berkeley) U of Washington	Bingham	Antineutrino Experiment in 15-ft. Bubble Chamber
180	Institute of High Energy Physics (Serpukhov), I.T.E.P. (Moscow), NAL, Michigan	Mukhin	Antineutrino Interactions in 15-ft. Bubble Chamber
183	Lebedev Physical Institute	Tretyakova	Emulsion Experiment