



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. - $\pi^- p$ 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