

the Bulletin Board

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DR. CLARKE WILLIAMS NAMED DEPUTY DIRECTOR

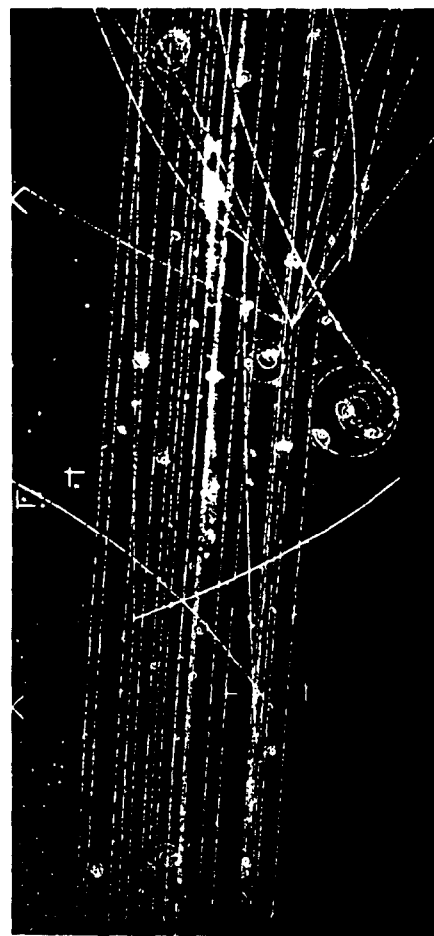
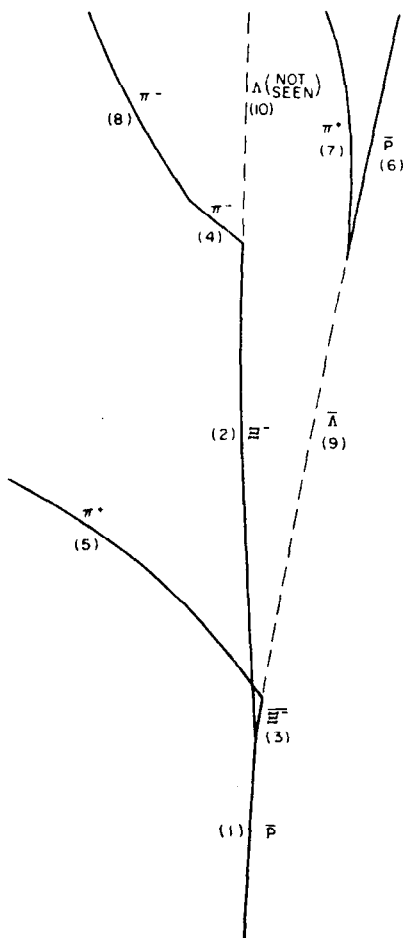


Dr. Clarke Williams, Chairman of the Nuclear Engineering Department, has been appointed Deputy Director of the Laboratory. The announcement was made on March 7 by Dr. Maurice Goldhaber, Director. Dr. Williams, who will assume the duties of his new post by the end of April, replaces Dr. Gerald F. Tape, who has been appointed Vice-President of Associated Universities, Inc.

A native of New York, Dr. Williams received his A.B. from Williams College, his B.S. from M.I.T., and his doctorate in physics from Columbia University. He began work at Columbia in 1941 on a project to develop a method of separating the U235 isotope by gaseous diffusion. This project later became the SAM Laboratories of the Manhattan Project. Dr. Williams was group leader in charge of pilot plant construction.

As executive assistant for the group responsible for the preliminary planning for Brookhaven and, later, assistant to the chairman of the group designing the Brookhaven research reactor, Dr. Williams was intimately involved with the founding of the Laboratory. He has been chairman of the Nuclear Engineering Department since it was created in 1952.

NEW ELEMENTARY PARTICLE DISCOVERED AT BNL



The liquid hydrogen bubble chamber photograph in which the new anti-particle was observed. The accompanying sketch identifies the incoming anti-proton (track 1). At the vertex it collides with a stationary proton, and a cascade hyperon pair is produced. One of this pair is a xi-minus particle (track 2), while the other is the anti-xi-minus (track 3). Other particles resulting from this cascade hyperon pair production are identified in the sketch by their symbols, although, in the case of the particles having no electrical charge, their paths cannot be seen.

A BNL team, composed of twelve scientists from Brookhaven and five from Yale University, have discovered a new atomic particle, the anti-xi-minus or anti-cascade-hyperon.

The existence of this anti-particle, which lives for only one ten-billionth of a second, had already been predicted. One reason that the anti-xi-minus had not been observed before was the difficulty of producing beams of high energy anti-protons. With a tungsten target in the Alternating Gradient Synchrotron, and a special arrangement of magnets and beam separators, it was possible to produce a pure beam of 3.3-Bev anti-protons. This beam was directed into the Brookhaven 20-inch liquid hydrogen bubble chamber, and

(Continued on following page)

NEW PARTICLE—Cont'd

the interactions between the anti-protons and the stationary protons (hydrogen nuclei) in the bubble chamber were photographed for subsequent study. The particular event resulting in the discovery of the anti-xi-minus particle was found after 34,000 pictures had been scanned. In this instance, an anti-proton collided with a proton, and a cascade-hyperon pair was produced. One of this pair was a xi-minus, and the other the anti-xi-minus particle. It has a mass about 40 per cent greater than that of a proton, and a positive electrical charge. When it decays, it disintegrates into a positive pi-meson and a neutral anti-lambda-hyperon. This latter particle then decays into an anti-proton and another positive pi-meson. This complex decay pattern gives rise to the name "cascade."

The discovery represents the identification of one of the last predicted particles of anti-matter, but much information still has to be obtained on some of its properties. The anti-xi-zero particle has also been predicted, but is yet to be observed.

Announcement to the scientific world of the discovery of the anti-xi-minus particle is made by means of two articles in the March 15th issue of *PHYSICAL REVIEW LETTERS*, a journal of the American Physical Society. One of these articles is by the Brookhaven-Yale team of physicists, as follows: Hugh N. Brown, B. Brian Culwick, William B. Fowler, Maurice Gaillard (on leave from Lausanne University, Switzerland), Theodore E. Kalogeropoulos, Joshua K. Kopp, Robert M. Lea, Robert I. Louttit, Thomas W. Morris, Ralph P. Shutt, Alan M. Thorndike, and Medford S. Webster. All the above are from Brookhaven. The Yale physicists are: Charles Baltay, Earle C. Fowler, Jack Sandweiss, James R. Sanford, and Horace D. Taft.

The other article is by a team of physicists from the CERN Laboratory in Switzerland, the French Nuclear Research Center at Saclay, and Ecole Polytechnique, a university in Paris. This team, working at CERN independently of the BNL-Yale team, also discovered a nuclear event in which an anti-xi-minus particle was produced. In this case, a 3.0-Bev beam of anti-protons from the CERN Proton Synchrotron (PS) was used. The PS went into operation in late 1959, about eight months before the AGS produced its initial accelerated beam.

Although the two teams have discovered the new anti-particle in independent research efforts, a spirit of the utmost cooperation has always existed between the CERN and Brookhaven laboratories, involving many exchanges of scientific staff and a continuous two-way flow of technical information.

A joint statement to the American Physical Society, by Dr. Maurice Goldhaber, Director of Brookhaven National Laboratory, and Dr. Victor F. Weisskopf, Director-General of CERN, who is on leave from his post as Professor of Physics at MIT, reads as follows:

"This important addition to our knowledge of elementary particles was made possible by the operation of the Alternating Gradient Synchrotron at Brookhaven and the Proton Synchrotron at CERN. While these research efforts were obtained independently, they were made possible by the free exchange of scientific information by groups of physicists who were using essentially the same tools of research in different parts of the world. We think this is a significant example of the importance of international cooperation in unlocking the secrets of nature."

THEATRE GROUP READING

A reading of "Waltz of the Toreadors" will be held at the home of Ruth and Harold Schwarz, South Country

Road, Bellport, on Thursday, March 22, at 8:30 p.m.

DIRECTIONS: 2nd house West side of Bellhaven Road on North side of street. All are invited - all are welcome!

FIFTEENTH BROOKHAVEN LECTURE

By A.O. ALLEN
CHEMISTRY DEPARTMENT

Title:

WET ELECTRONS -
THE RADIATION CHEMISTRY OF WATER
Lecture Hall, 8:00 p.m., Wed., March 14

A buffet supper (\$2.75) will be served at the Brookhaven Center before the lecture, beginning at 6:00 p.m. Reservations should be made at least one day in advance by calling Ext. 2302 before 5:00 p.m., or Ext. 2453 in the evenings.

Refreshments will be available in the Research Staff Lobby following the lecture.

*Arrivals and Departures***WELCOME TO BNL**

CONTROLLER'S OFFICE, A.U.I.	
Walter Stamford	Ext. 2117
PHYSICS	
Barbara Adams	574
Norman Franklin	791
Carl L. Jacobs	686
Frank Merkert	2369
PLANT MAINTENANCE	
John H. Bennett	2120
Marion Dorfer	333
William Neal	2120
PURCHASING	
Joseph Haeg	2493
SUPPLY & MATERIEL	
Vincent C. Felice	470

LEAVING BNL

CENTRAL SHOPS	
Albert C. Pauli	
PLANT MAINTENANCE	
James Caroleo	

EUROPEAN TOUR

How would you like to spend twenty-eight days on a fascinating tour of Portugal, Spain, France, England, Scotland and Ireland during the month of September? At least 25 people are necessary to get special rates. Total cost, including TWA jet round trip, all transportation on tour, lodging, meals, tips and experienced tour conductor, is \$750.00 per person. If you are interested or have relatives or friends who are, please call Ext. 590.

If a sufficient number respond, a meeting will be called within a week at which time all details will be explained and movies shown.



BERA BOWLING

PINK LEAGUE

'Twas a good position night for the underdogs. The Nightingales traded 2nd place for 1st with the Dipions, by taking all 4 points.

The Question Marks and the Contacts stayed in 3rd and 4th places, respectively, but the Cons took 4. C. O'Neill rolled 193 and L. Bartos 154 for the Question Marks. A. D'Esposito rolled 176/458 for the Contacts which puts her in second position for high gross series with 671.

The Twinkletoes left their fallout shelter and are now in fifth place taking 3 points from the Allthumbs.

RED LEAGUE

A desperate battle has developed in this league. Three teams are tied for last place, and next week will be the big fight to break the tie. They are each pitted against one of the three leading teams.

The team standings are Utilities 59, Biology 58 and Cosmos 49½.

The Battle: Utilities (hdcp. 144) vs. Ah So (hdcp. 217); Biology (hdcp. 223) vs. H.P. Outs (hdcp. 280); Cosmos (hdcp. 206) vs. Mecca (hdcp. 244).

The 200 bowlers last week were: McGrann 232/552 for Mecca, Connelly 213/578 for Utilities, Jackson 203/536 for Ah So's, Beckwith 202/533 for the H.P. Ins, Bieselin 202/488 for the Downunders, and Berech 200/518 for Biology. Congratulations also to Combatti 197/574 for Biology and Malinowski 191/505 for H.P. Ins.

GREEN LEAGUE

The Fire Department took a dumping again from the Black Birds losing 4 points. Green, Zelenka and Garafola rolled 162, 176, 160 respectively for the Black Birds. Trying hard for the Fire Département were Rhodes rolling 182 and Texiera rolling 180.

The Reefers split with the Old Timers II. High men for the Reefers were Holmquist 203/525, Reams 206/519, and Ratyca 197/505.

The Old Timers I, losing 3-1 to the Old Timers III, were held to a close second. For the winners Walker rolled 236, 197/576 and Horwath rolled 172/479. Hardman rolled 177/480 for the losers.

The Gnats and the Electrons split 2-2. Bowling well were Tomesch 182/502 for the Electrons and Kalinowski 201/465 for the Gnats.

BROOKHAVEN CENTER

Arrangements for the use of Brookhaven Center by Laboratory activities are made through Staff Services (E. J. Bergin). Defects and inadequacies that develop in the Center's facilities should be brought to the attention of Staff Services.

BERA FILM SERIES

ROSEMARY

Thursday, March 15

Lecture Hall

8:30 p.m.

A satirical revelation of upper-strata life in post-war Germany, "Rosemary" is based on the actual story of the murder of a Frankfurt courtesan who kept a dossier of top German businessmen and diplomats. It's ironic thrusts at the grossness of "post-war millionaires" are divertingly leavened with "cabaret" music interludes. "Rosemary" has been widely recognized as being in the style of the original German production of the Weill-Brecht "The Three Penny Opera."

In addition to the feature film, a short subject, "Fifty Miles of Poona" will be shown. A story of an Indian Hindu family, the picture is a release of the National Film Board of Canada.

LARGE BORE RIFLE

Rifle shooters - get that trusty shooting iron out of the closet! In two weeks the shooting starts. On Sunday, March 25, at 2:00 p.m. we have our "sighting-in day." Range is 200 yards on the north BNL site.

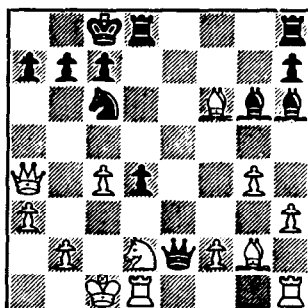
The following Sunday, our Spring tournament begins. We will shoot all four positions at 200 yards. Entrance fee for the thirteen-week contest is \$1.00. For information, call F. German, Ext. 2151, or A. Lukas, Ext. 769.

SOFTBALL TEAMS

Now is the time to start rounding up your team for entry in the 1962 slo-ball season. Opening game is just around the corner. A meeting will be called very shortly to make plans for the coming season. For additional information, call R. Jones, Ext. 2200 (Softball Chairman) or the Rec. Office.

CHESS PROBLEM

S. Puc, playing with Black, won this one in 1948 from Dr. Ujtetki, playing with White. White's weakness is probably of castling long, and Black brilliantly took advantage of it. Answer elsewhere in this week's BULLETIN BOARD.



BNL VISITORS

On Tuesday, forty-eight cadets from the U.S. Military Academy at West Point and sixteen Queens College chemistry students were given a tour of the Laboratory.

This Wednesday and Thursday, March 14 and 15, Brookhaven will be host to eight Sloan-Rockefeller Fellows of Columbia University's Advanced Science Writing Program. The Fellows will tour the site and discuss with staff members the various research programs of the Laboratory.

OPERA NEWS

To expedite your Opera reservation, please note the following:

1. For **information** on prices, schedule, seating arrangements, etc. stop at the Personnel Office reception desk.

2. For actual **reservations** for specific performances, stop at the Personnel Office between the hours of 10:00 a.m. and 12 noon only.

3. There is a **limit** of 4 tickets per order, and orders must be placed two weeks in advance accompanied by check.

THEATRE GROUP

"The Moon Is Blue" will be staged at Brookhaven sometime in May. Casting is now under way. We need three men and one girl with or without stage experience. Come along to tryouts and have fun. Tryouts will be held in the Recreation Building on Wednesday and Thursday, March 14 and 15, at 8:30 p.m. Further tryouts at lunchtime (12:15 p.m. to 1:00 p.m.) will be held on Monday, Tuesday and Wednesday, March 19, 20 and 21. Place to be announced next week.

BULLETIN BOARD CLASSIFIED AD POLICY

1. Employees only may place ads in THE BULLETIN BOARD.
2. All items advertised for sale must be property of an employee.
3. Real estate ads will be accepted only when they involve change of residence by an employee, and are accompanied by statement of ownership and change of residence.
4. No ads for business purposes will be accepted.
5. Ads must be submitted in writing (preferably typed) by 3 p.m. Friday for inclusion in the next week's newspaper. Address the ads to THE BULLETIN BOARD, 58 Brookhaven Avenue, or deliver them to the Personnel Office. Ads must contain a signature and Laboratory telephone extension. If you do not want your name to appear when the ad is printed, put it in parentheses.
6. Ads are run on a space available basis. If your ad does not appear due to space reasons, it will be held for inclusion in the next issue of THE BULLETIN BOARD.
7. If you wish to repeat an ad, it must be re-submitted.

SOLUTION TO CHESS PROBLEM

Diagram made after White's 17th move.

WHITE	BLACK
17.	17. B-B5 (not Q to Q6 because White would P-N5, etc.)
18. Q-N3	18. N-R4
19. Q-R2 (if (19) Q-KB3,	19. Q-Q6 Q x Q, (20) B x Q, N-N6 mate).
20. White resigns.	

CLASSIFIED ADS

FOR SALE

1960 CORVAIR 700 - Four dr. sedan, 35,500 miles, nearly new tires, new muffler, good cond. \$1150. M. Greene, Ext. 779 or AT 6-0237.

CORVETTE 1959 - White & blue, Deluxe equipped, 2-4 barrel carburated engine, std. shift. Clean & in gd. mech. shape. Tut, Ext. 2255.

1958 CHEVROLET BISCAYNE - Yellow and white. Bought new car - makes three - have one car garage....must sell. 4 dr. sedan, r&h, excell. cond. \$800 or best offer. Ext. 373 or BR 3-2250.

1954 CHEVY - 4 dr., Sta. Wag., 6 cylinders, std. shift, r&h. \$200. Ext. 2332 or AT 6-0908.

1959 TR-3 TRIUMPH - Convertible, fully equipped, 21,000 miles. F. Governale, Ext. 660.

1956 FORD FAIRLANE - Victoria, T Bird Special Engine, 2/10, Fordomatic trans., signal speaker radio, heater, w/w like new, new battery, many extras. Ext. 2455 or AT 6-8907.

HOUSE - 3 yrs. old, split level, Patchogue - South Country Shores, excell. location. 3 bedrooms, playroom, many extras. AT 9-0632.

HOUSE - 4 rms, 2 bedrooms, living room with chapel ceiling & fireplace, knotty pine kitchen, hot water heat, near school, low taxes. South Haven. AT 6-0761.

SAILBOAT - 23', stainless steel and brass rigging, 5 horse auxillary motor. F. Governale, Ext. 660.

BLUE JAY - complete with sails, used 3 seasons. Ext. 2332 or AT 6-0908.

26' RICHARDSON - 1936 Hull, Grey 100 hp 1956. Flying Bridge. Priced for quick sale. AT 1-8087 after 5:30 p.m.

24' DAY SAILER - Complete ready to go. Many extras including storm sail and spinnaker gear. Price includes spring launching. Very reasonable - must sell. AT 6-0691 or Ext. 2430.

SPEEDBOAT - Higgins 17'9", powered with Chrysler Ace 95 hp. Boat & motor completely rebuilt in 1961. Hull has new fiberglassed bottom, nautolex cockpit flooring and new varnishwork. Complete with new full cover, cushions, elec. bilge pump, fire extinguisher, extra monel shaft, lights, etc. Boat is fast and able, makes an excell. bass boat for inlet fishing or great for pulling water skiers. Boat is painted, varnished and ready to go. \$1145. R. Young, Ext. 591.

15' WOOD RUNABOUT - Windshield, 35 hp 1960 Gale, 2 tanks, controls, 4 cushions, anchor. \$450. Ext. 2320 or PA 7-3538 after 6 p.m.

JENCO VIBES - In blue pearl, new. AT 1-6632. IDEAL LAWN MOWER SHARPENING MACHINE - Also good for ice-skates, etc. Start your own business for only \$50. AT 4-0227.

21" TV - RCA console. Cabinet perfect. Picture tube needs replacing. AT 4-0227.

G.E. FREEZER chest type, 8 cu. ft. excell. cond. \$75. AT 4-0227.

HARDWICK GAS RANGE - 4 burner apt. size. Oven & broiler with heat control. Used only 3 months. Excell. cond. \$50. Tome, Ext. 301, 22.

GENUINE BEAGLE PUPS - Non-Ped. \$15. Ext. 2210.

SKI POLES - 52", stainless steel, tapered shaft. Original \$14. Price \$7. E. Raka, Ext. 310.

BRIDGE LESSONS - At practically no cost. So you don't know an ace from a deuce? It

doesn't matter! Learn to play bridge by taking some easy lessons one night a week. Date and times to be arranged. Call Sandy Wagner, Bridge Club Chairman, Ext. 618.

TYPEWRITER - L.S. Smith, std. model, old but in gd. working order. \$15. W. Dunnigan, Ext. 445.

GAS FLOOR FURNACE - Used 3 mos., sale price \$75., elec. hot water heater 220 v. 42 gal. Gd. cond., \$75. Reason for selling, installed new heating system. AT 1-9430 after 6.

COINS - B.U. 1960-D. Sm. dt. cents. Will trade one for your three Indians in Gd. or better. I am also interested in any other U.S. Coins. Stan, Ext. 2254.

WANTED

BLUE JAY. With or without sails. Will consider boat in any condition. B. Lomonosoff, Ext. 2516.

ICE SKATES - For 7 year old girl, size 2 shoe. They don't need to be too good. She's a real beginner. Ext. 731, C. Paul.

CAR POOL

We need 2 drivers to complete existing carpool from Holtsville. Ext. 2180.

Ride needed from S. Ocean Ave., Patchogue. Ext. 2464 or 2467.

Driver wishes to join carpool from Patchogue. Ext. 472.

FOR RENT

APARTMENT - 3½ rooms in Patchogue Garden Apartments for sub-lease from May, 1962 until Dec. 31, 1962. Rent is \$95/mo. After that you may lease from landlord. GR 5-1744 after 6 p.m.