

The last day of the ISABELLE Summer Study was spent reviewing the results of two weeks of hard work on the part of various small study groups. From left to right are: W. Willis, CERN; Sam Ting, MIT; Leon Lederman, Columbia and Ronald Rau, BNL.

—Photos by Humphrey

ISABELLE Survives Summer Study

Now that the dust has settled from the ISABELLE Summer Study which ended last Friday, one can sit back and ponder its outcome. Most significantly, the overall machine design and experimental program, outlined in the "yellow book," seems to have withstood the test of the two-week study. "No major changes were suggested," said Associate Director for High Energy Physics Ronald Rau.

At the onset of the study, the experimental physicists were asked if the number of experimental regions proposed could be cut back from eight to six as a cost saving measure. The answer was no because the savings in large loss of physics capabilities. "You would save a few percent in dollars but lose 25 percent in physics capabilities," said Rau.

Possible reductions in cost were considered for other areas of the machine as well. Cost savings were envisioned for example for the superconducting material and the refrigeration system. "During the coming year, a great effort will go into the question of cost reduction in every aspect of the ISABELLE project," commented Rau.

After considering numerous experiments proposed for that machine, the general consensus was for the all-out effort in the coming year for the construction of the ISABELLE radio-frequency system, especially in regard to the short periods before acceleration when pulses are stacked into the machine from the AGS.

The working group on magnets recommended an all-out effort in the coming year for the construction of several full scale dipole bending magnets and a full scale quadrupole focusing magnet.

The atmosphere suspended over the summer study was permeated with enthusiasm and a sense of accomplishment. Many com-

mented on how well planned and run the study was. At the end, it was generally agreed that the project was ready to go as soon as funds were made available. "The more research and development work that can be done in the coming year, the shorter will be the construction time," said Rau.

The next construction summer study will be held when the project has been funded, said Rau. At that time it will be extremely valuable to look at all questions which have arisen. Once construction begins a number of groups will be formed to work on specific projects.

A Unique Breed

The high energy physicist is a remarkable fellow.

Compared to his fellow scientists, he is a separate entity.

His language is filled with odd terms, like strangeness - not as in bisexual, but in behavior of particles.

Charm - not of a beautiful woman, but a property of a particle, and symmetry, not of the form filling a bikini, but of isotopic spin. When the physicist speaks about conservation - be careful! If it is during working hours, it means conservation of energy. If on the weekend, he is worrying about the damage to wetlands. Parity to the rest of us is something to do with grain prices. To the physicist parity is an energy state in wave mechanics.

The high energy physicist has been told for the past few years that he is in a losing field. All of the new discoveries have been made, and any new development will come from the greybeards who have a safe chair in a university faculty, or the directorship of a large installation.

But, somehow or other, the high energy physicist does not believe all of this information. He still wants a higher energy accelerator.

He (or she) tends to dress differently than the chemist or the engineer, and in the cafeteria, tends to sit with a large and vocal group and discuss esoteric subjects with lots of hand-waving and a decided lack of respect for the opinions of his elders.

If of the feminine gender and a theorist, she tends to dress in skirts and blouses, and manages to look as feminine as a Playboy bunny, while proposing theories as radical as a revolutionary can be. If an experimentalist, her jeans are just as patched as those of the men she works with.

The high energy physicist is clannish. He

(Continued on Page 2)



Displaying the competition to the J-particle t-shirt are William Wallenmeyer (left), Assistant Director for High Energy Physics Program in ERDA's Division of Physical Research, and Aihud Pevsner, John's Hopkins and Chairman of the Summer Study Organizing Committee.

Joining Forces To Fight Disease

Once a month, Dr. Italo Zanzi makes the 40-mile journey to Nassau County Medical Center to run a metabolic bone clinic. The clinic serves as a treatment center for persons afflicted with chronic, crippling diseases of the bone. It is the only clinic of its kind on Long Island. Patients with osteoporosis can be referred to the BNL Osteoporosis Research Program.

The clinic was started in 1973 by Dr. Zanzi, in collaboration with Dr. Martin Roginsky, Chief of Endocrinology at the Medical Center and Dr. John Aloia, Assistant Chairman of Medicine. Since then, the clinic's staff has been expanded to include between five and seven fellows and residents, and from time to time a sprinkling of medical students from the State University of New York at Stony Brook.

Open for only two and a half hours, once a month, the clinic is a maze of activity. Approximately 17 patients are seen on a regular basis, all suffering from very specialized and uncommon bone ailments, such as Paget's Disease, characterized by painful, localized deformities of the bone. The most common disease seen in the clinic is osteoporosis, which depletes the skeleton of its calcium content. About 25 percent of post-menopausal women are afflicted, in varying degrees, by this disease. The clinic also deals with diseases caused by disorders of the body's calcium metabolism.

In some cases, Dr. Zanzi will recommend that a patient come to the Lab for further treatment and analysis with the whole body counter, the Lab's unique facility for the measurement of total body calcium by neutron activation analysis. Usually there are no more than four patients with metabolic bone disease in the Hospital of the Medical Research Center at any one time. Dr. Zanzi sees most on an out-patient basis, averaging three a day.

Dr. Zanzi enjoys his close interaction with patients. "I have been a clinician all my life and it is a way for me to maintain my clinical expertise," he said. A native of Chile, he started working at the Lab in February of 1973.

Over the last few years, the Clinical Osteoporosis Program at BNL has been greatly expanded to include collaborations with many area hospitals besides the Nassau County Medical Center.

Once a month, Dr. Stanley Wallach, Professor of Medicine at the Veteran's Administration Hospital in Albany, brings male patients with senile osteoporosis to

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In next week's *Bulletin* the Off-Site series will take a look at quaint towns to tackle on foot.



Dr. Italo Zanzi (right) and Dr. W. Noah Kromholz in the reception area of the metabolic bone clinic at the Nassau County Medical Center.



Dr. Zanzi (right) and Dr. Kromholz check the progress of a patient in the examining room of the metabolic bone clinic.

Fighting Disease (Continued)

the Lab for analysis. This type of osteoporosis is similar to that formed among post-menopausal women.

Plans are in the works for a joint effort between Brookhaven and the Veteran's Administration Hospital in Northport to determine whether there is a calcium deficiency in epileptic patients receiving anti-convulsant drugs.

Brookhaven is working with St. Luke's Hospital in New York City and the Nassau County Medical Center to study the effects of secondary osteoporosis in patients following surgical removal of the stomach.

Recently, a program was started at the

Lab to survey the normal population of menopausal women in an effort to determine whether latent osteoporosis can be detected before it is clinically evident. If early detection is possible then preventive treatment could be started.

Dr. Zanzi holds an assistant professorship at SUNY at Stony Brook. From time to time he lectures on metabolic bone disease to both pre-med and medical students.

Along with his other involvements, Dr. Zanzi is the founder of the Long Island Bone Metabolism Discussion Group which holds monthly meetings at the Lab in the evenings, attended by physicians from Long Island, New York City and New Jersey.

Hospitality News

The next Hospitality Committee get-together will be held on Tuesday evening, August 5, from 8 to 10 p.m., in the Recreation Building.

"L.I.U.S.A.," an award-winning 30-minute film featuring Long Island, from Montauk to Manhattan, will be shown. Refreshments will be served and spouses are invited.

Summer Disco Sounds

August 2, a special summer "Let's Get It Together" party and buffet will be sponsored by the Brothers of BNL. This event will be held in the Rec Hall, with music by "Kaluto."

Unique Breed (Continued)

talks down to all those who don't know the difference between a hadron and a lepton, and goes on and on at great length about the beauty shown in a series of bubble chamber films that only look like chicken scratches to the rest of us.

Generally the high energy physicist is very tolerant of the rest of the world. He will explain (with all of the patience of a parent talking to a five-year old) the reason why his research is important to the scheme of living.

But don't try to second-guess his research. Don't try to penetrate the magic circle of his special knowledge unless you are a high energy physicist too.

It's o.k. if you are another high energy physicist at a laboratory in Stanford or Batavia or Lucerne or Leningrad. Then you are in "the club," and privy to all of the secret rites and mysteries of the heart of the nucleus.

When the high energy physicist makes a new discovery, the news gets around inside the clan with a remarkable speed that sometimes makes the computer's millisecond response time look like slow motion.

To the outsider, it appears that there is a great dissention in the ranks of researchers about the merits of the experiment that led to the published paper.

No so!

Every one of the high energy physicists decides that he could have run the experiment with more precision, or with a better plan for data collection. Every high energy physicist is sure that he could present the results more precisely, but - every high energy physicist will agree that only a real high energy physicist could produce the remarkable discovery that has just been announced in the *Physical Review Letters*.

Instead of "for the betterment of mankind," the high energy physicists should label his research area in a more practical way. The motto adopted by Texas many

Arrivals & Departures

Arrivals	
Rehana Mukhtar	Chemistry
Departures	
Albert W. Castleman	App. Science
Jerry D. Garrett	Physics

Think Metric Cliches

Will the United States ever "go metric?" If and when it does, Americans will have to translate typical cliches into metric. Here are a few examples:

- All wool and 91.3 centimeters wide.
- A miss is as good as 1.609 kilometers.
- Peter Piper picked 8.81 liters of pickled peppers.
- Hell's 2023.5 square meters.
- A decigram of salt.
- Beat him within 2.54 centimeters of his life.
- It hit me like 907 kilograms of bricks.
- Give him 2.5 centimeters and he will take 1609 meters.

Upton Nursery School

Three or four year old children of all Lab employees are eligible for the Upton Nursery School. Fall classes begin September 8. Registration is currently taking place and available space is very limited.

If you are interested in enrolling your child or wish further information please call Linda Lynn 929-8329.

years ago would do much better - "Don't Tread On Me" with the picture of a very large rattlesnake ready to strike.

We (the other world of non-high energy physicists) don't really understand what high energy physics is all about. We can't see the relevance of all of this expensive research to the plan for living today. Even the high energy physicists has a difficult job telling us what is so good about the latest discovery, except to the textbook publishers, who will have to revise a whole new series of books. The college student will have to spend a few more bucks to buy one of the new texts, and some awards will be made at an annual meeting of the American Physical Society.

But all of us will eventually have to bow to the high energy physicist who is looking so far ahead of today's problems that by the time his research is popularized, he will be one of the greybeards who is being attacked by a group of new, fresh, long-haired students in a cafeteria some day in the distant future. —Carl Thien

Selected Reading

- Impact Sci. Soc. 25, April-June 1975
- Women in science: A man's world.
- Woman's scientific creativity. L. Tosi. 105-14
- Obstacles to women in science. D. Shapley. 115-23
- The savant and the midwife. J. Feldman. 125-36
- Women in the workforce - the general picture. International Labour Office. 137-45
- How a woman scientist deals professionally with men. M. de Meyron-Landolt. 147-52
- Women academics "publish less than men." A. Ferriman. 153
- Distribution by sex of principal scientific awards and membership in academics of science. 154
- The professional woman in modern Poland. H. Lewicka. 155-8
- The popularization of science: A new profession being developed by both men and women. J. Julliard. 159-68
- New Sci. 66, June 12, 1975
- World environment: What's happening at UNEP? Stockholm, Nairobi and when what? J. Tinker. 600-4
- A penny for the planet. B. Johnson. 604-6
- UNEP: Successes and failings. M. Strong. 606-8
- The UN's agents of change. T. Loftas. 608-9
- A deceptive calm in Nairobi. T.B. Stoel, Jr. 610-11
- Vox Pop. R. Sandbrook and D. Runnalls. 612-13
- The New Yorker 51, July 21, 1975
- The energy bazaar. E. Drew. 35+

Film Service Drawing Today

The Camera Sweepstakes at the BERA Film Service in Berkner Hall will have its first drawing today at 2:30 p.m.

You can bring your film in for processing to get a numbered receipt for the drawing up until 2 p.m. today.

The winning number will be published in the *Brookhaven Bulletin*.

The grand prize is a Kodak Pocket Instamatic - Model 110.

Right Turn on Red

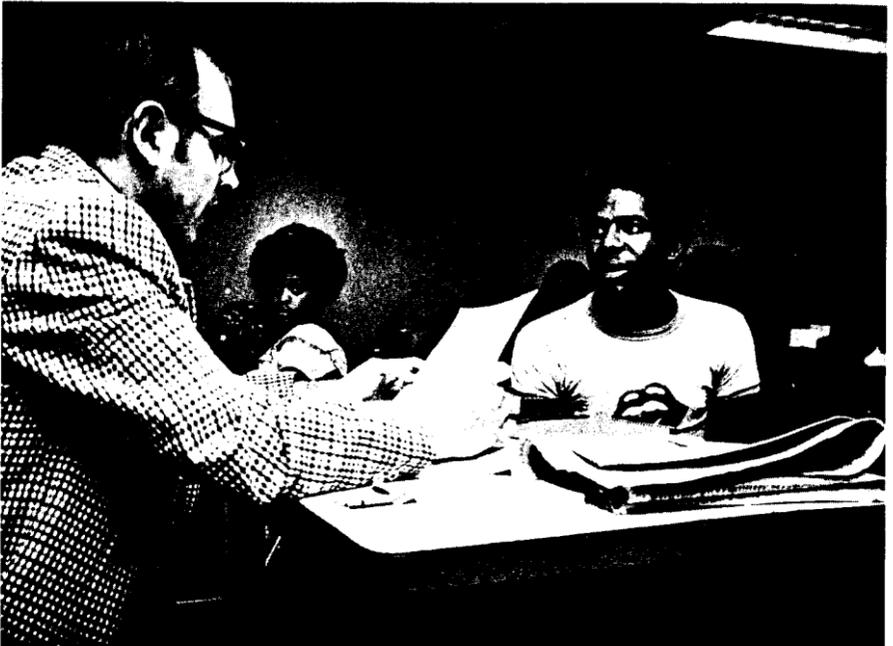
Right turns on red lights are being allowed at an increasing number of intersections throughout New York State. These "right turns on red" are permitted when, and only when, three conditions exist:

1. A sign permitting the turn is posted at the intersection reading "Right Turn On Red After Stop."
2. As indicated by the sign, the motorist facing the red traffic signal may turn only after his vehicle comes to a full stop.
3. The turning motorist must give way to pedestrians and other traffic using the intersection.

The signs authorizing these turns at approved intersections are black and white and are reflectorized for nighttime visibility.

—Chief Paskiewicz

A Job Interview



Vincent Murphey (left), Placement Coordinator of BOCES, speaks with Donald Gray, Youth on Campus participant, during a mock interview session.

A Tale of Success

While a medical student at Albany Medical College, Alan Ashare spent his summers at Brookhaven as a research laboratory assistant. In 1967, after receiving his M.D., Dr. Ashare joined the staff of the Massachusetts General Hospital and became a research collaborator in BNL's Medical Department.

Last week, he was appointed Chairman of the Department of Radiological Sciences of the School of Medicine at Wright State University in Ohio. Prior to this appointment, Dr. Ashare was Assistant Professor of Radiology at the University of Cincinnati where he was active in establishing a nuclear residency program.

Since he terminated his research collaboration at Brookhaven in 1968, Dr. Ashare has conducted research in medical computer applications, medical picture processing and three dimensional reconstruction techniques. He has also been involved with the evaluation of nuclear medicine imaging instruments and myocardial infarction imaging agents.

Scavenger Hunt

Last Friday's BERA summer recreation program special was the Scavenger Hunt.

Children in the program were sent in search of such unlikely items as purple shoes, green caterpillars, a red-headed woman, watermelon pits and other assorted goodies. Two teams competed to see which would come to the recreation building with most of the thirty items on their list.

Both teams completed sixteen of thirty and were rewarded with a juice and watermelon party for all.

This week's special is the Halloween Party and next week is Track and Field Day.

Tennis Tournament News

We're finally getting there. Despite rain, scheduling mix-ups, business trips, vacations, more mix-ups and communication gaps, the tournament is moving towards the finals. Some finals will have been played when you read this.

The women's singles finalists are first seeded Shizui Iwai (who was last year's runner up) and Chris Saitta. Iwai beat Sanborn in the semifinals.

In the women's doubles the top seeded team of Mary Jane Stangby and Marta Kevel are playing the second seeded team of Anna Lee Luhman and Shizui Iwai.

Mixed doubles action is scheduled to pick up Monday with the Schonbergs playing Saitta-Elmore in one semi-final match and the Luhmans playing Iwai-Rosenberg.

The mixed doubles finals will be played early next week. The date will be posted. Allan Rosenberg is first Tom Koetzle, A. Kevey, K. Foley and D. Greenberg. He meets the winner of the Elmore-Gibbs semi-final match. The men's singles finals will probably be played Friday.

In the men's doubles, Elmore-Koetzle are into the finals. Unfortunately due to tournament delays and business travel the Carsten-Quell team had to withdraw from their semi-final match against Auskern-Kevey.

More tennis news next week. Watch for notices for any schedule changes.

Lacrosse Discount Tickets

The Long Island Tomahawks lacrosse team is presently playing a 56-game schedule, with home games being played at the Nassau Coliseum in Uniondale.

As members of the Long Island Industrial Association, all BERA members are being offered special discount rates for all home games. Upon presentation of your BNL identification card, you may purchase \$6.50 tickets for \$3 and \$4.50 tickets for \$2.

For schedule information call the Long Island Tomahawks Lacrosse Club in Garden City, (516) 742-7650.

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CARI R. THIEN, Editor
JEAN BURKE, Assistant Editor
CAROL GOLDSTEIN, Copy Preparation

40 Brookhaven Ave. Upton, N.Y. 11973
Telephone 516 345-2345



Members of the Pantomime Theatre of Olsztyn in performance.

Deaf Artists To Perform Pantomime Theatre Here

The Pantomime Theatre of Olsztyn, Poland, a company of 35 deaf artists, will appear in Berkner Hall on Wednesday, August 6, in a special program sponsored jointly by the BERA Concert Committee and the Slavic Cultural Center of Port Jefferson.

The pantomime company, established in 1957, initially won recognition as an experiment involving deaf people in the theatre. In the years since, however, it has appeared in various cities of Europe and won wide recognition for the artistry of its performances. The company is now considered one of Eastern Europe's outstanding theatre groups.

The Olsztyn Pantomime is being brought to this country by the American Medical Association. Before appearing at BNL, they will give a series of performances at the Kennedy Center in Washington, D.C. At BNL the company will perform "Apokalypsis," a pantomime spectacle in five parts based on the "Revelations of St. John the Divine" and the engravings of Albrecht Durer. Musical accompaniment includes fragments of compositions by Krzysztof Penderecki and H.M. Gorecki.

The program will begin at 8:30 p.m. Admission will be \$4.00 for adults, \$2.00 for students and senior citizens.

Trip to NYC

Another group railroad trip to New York City has been arranged for Wednesday, August 6.

Departure will be 8:59 a.m. from the Patchogue LIRR station; any train may be used for the return trip.

Cost of round trip fare is between \$2 and \$3, depending upon the number of people who take the trip. Children under six ride free of charge.

Please sign up for the trip by calling Rosemary Jewett, Ext. 3089, or Ruth Dimmler, 751-6342.

Cafeteria Menu

Week Ending August 8, 1975

Monday, August 34	
Tomato Vegetable Soup	
Keilbasy w/Sauerkraut	1.05
Grilled Ham Steak & 1 veg.	1.15
Tuesday, August 5	
Cream of Potato Soup	
Southern Fried Chicken & 1 veg.	1.10
Macaroni & Cheese & 1 veg.	1.00
Wednesday, August 6	
Lentil Soup	
Tuna Noodle Casserole	1.10
New England Boiled Dinner	
Cup of Split Pea Soup	
Corned Beef & Cabbage	
Boiled Potato or Mashed Turnip	
Choice of Pie	
Small Beverage	\$1.87 plus tax
Thursday, August 7	
Chicken Noodle Soup	
Chili Dogs & Rice	1.00
Salisbury Steak & 1 veg.	1.05
Friday, August 8	
New England Clam Chowder	
Broiled Red Snapper & 1 veg.	1.10
Roast Sirloin of Beef & 1 veg.	1.25

At The Pool

At the swimming pool last Friday the BERA summer recreation staff conducted its annual Diving Contest and Paper Plate Races. The Diving Contest featured the craziest and fanciest dives of the day. Wonderful acrobatics were performed by winning contestants Paul Tanaka, Kevin McTague and David Greenhouse in the crazy dive and Molly McQuigg, Kevin McTague and Wendy Soudervieker in the fancy dive.

Meanwhile, in the shallow end of the pool, the paper plate races were going strong. Participants pushed plates across the water without using their hands. Award recipients were Vlatker Orhanovic, Michele Place, Jody Miles, Paul Greenwood, Sharon Emery, Kathy Small, Julie Kalbeleisch and Sarah Hamner.

This week's pool special is Relay Races, and next week's is the Tug-of-War and Spoon Race.

Pool Specials Open To All

The BERA summer recreation program staff would like to remind all Lab employees that every Friday at 3 p.m. during the summer, a special event is held at the swimming pool.

The specials are open to children of all Lab employees and prizes are always awarded. Come one and all and have a good time!

Swimming Pool Schedule Effective Through August 31

Monday - Friday	
11:30 a.m. - 1:00 p.m.	Employees Only
1:00 p.m. - 2:30 p.m.	Children's Lessons
3:00 p.m. - 9:30 p.m.	Employees/Families/Guests*
Saturday & Sunday	
1:00 p.m. - 6:00 p.m.	Employees/Families/Guests*

Season Passes	
\$10	Employee or Family Member
\$20	Family
Daily Rates	
50¢	Employee/Family Member
75¢	Guest

Summer season will extend through September 30, 1975.

*Only one guest per adult member may be admitted to the swimming pool at any one time without prior arrangements. Adult BERA member may arrange to have more than one but not more than five guests at any one time by making arrangements with the Recreation Representative in the Personnel Office in advance.

Clinic In Basketball

Wayne Treadwell, YOC of the BERA summer recreation program, reports that all is going well in the basketball clinic he is conducting on Tuesdays and Thursdays in the gym.

Boys from the ages of eight to sixteen are learning fundamentals such as dribbling and foul shooting and winning a few prizes and ribbons in special contests along the way.

Sportsmanship is the main trait Wayne wants to teach the boys, and he stresses this whenever he can.

The clinic now has twenty participants and more are welcome. Boys can come to the gym on Tuesday or Thursday at 3 p.m. or sign up at the pool anytime.

Theatre Group Elections

The Nominating Committee of the BERA Theatre Group will present the following names as officers at its next meeting, Tuesday, August 19, at 8 p.m. in Stage II (Exhibit Hall):

- Rita Straub, president
- Don Galvin, vice-president
- Gail Williams, secretary
- Blair Munhofen, house
- Bill Love, advisory committee

The President will accept nominations from the floor.

Readings from plays will be considered as production possibilities will be offered as the program for the evening.

The BERA Theatre Group would like to produce that delightful musical hit "Charlie Brown," but it has no director for the show. Let's not disappoint mom, dad and the kiddies. This is a call for a director. Those interested should contact Bob Kinsey, Ext. 2903.

