Alumnus wins Nobel Prize

A member of MIT Class of 1953 was named co-recipient of the 1972 Nobel Prize for Physics in the recent announcement of the annual prizes.

Dr. John Robert Schrieffer, now Professor of Physics at the University of Pennsylvania, earned his BS in Physics at MIT in the period from 1950 to 1953, and went to the University of Illinois for his graduate work. There, in 1957, he and Dr. John Bardeen of Illinois and Leon N. Cooper (now at Brown) announced the "BCS Theory of Superconductivity," for which they won the 1972 Nobel.

Bardeen. These three men, working together, developed a solution to the problem of the origins of superconductivity, a solution which "ranks as one of the major achievements in physics of the century," according to Science magazine.

Professor George Koster of MIT's Graduate School of Physics was a post-doctoral fellow at the Institute during Schrieffer's senior year, and worked in the Solid State Molecular Theory Group, of which Schrieffer was also a member. "It was a large group, so I never worked with Schrieffer or got to know him," Koster said. "As I remember, he was doing his senior thesis on some atomic structure calculations -- nothing original or earthshaking," the group was headed by Professor John Slater; Koster said that Slater had supervised the theses of three Nobel laureates.

Satter, who left MIT when he reached the mandatory retirement age of 66 and is now with the University of Florida in Gainesville, confirmed that he worked with Schrieffer. "He was very fine," Satter said. "He had worked with two other Nobel winners; he supervised the doctoral work of Halbert Howard, who won the 1956 prize for his work on the discovery of the Jahn-Teller effect, and he supervised the thesis of Feynman, who was a co-recipient of the 1965 Nobel for his work with advanced theories of quantum electrodynamics. I think, although he probably did have to work with these men, he did not feel that this was a special honor, or a phenomenon unique to him. The Tech could not reach Satter for comment.

Alumni wins Nobel Prize.

According to Dr. George Koster, head of the Solid State Molecular Theory Group at MIT, the work of Schrieffer, Bardeen, and Cooper was "unique to him." Koster said that Slater had "felt that this was a special honor, or a phenomenon unique to him. The Tech could not reach Satter for comment.

The post of Special Assistant to the President and Chancellor concerned with special matters of concern to women at MIT, created late last July, has not yet been filled.

Although the announcement of the new position was made in conjunction with Women's Week on August 2, it included the prediction that an appointment would be made in September. Mrs. Harry C. Hansen of the Personnel Office, who heads the Women's Staff in the Personnel Office, said that the search will be "very careful," and that "we will have to wait and see what the position will be like and who is the best person for it."

The number of applicants still being considered has been limited to a few, Hansen explained, although she declined to make a more quantitative estimate. "We hope to make the final selection in the next week or two," she commented.

Given the position of Women's Staff in the Personnel Office, Hansen said that the Special Assistant will be expected to serve as a women's advisor to the President and Chancellor.

While Hansen did not reveal whether these positions are part of the overall numbers of appointments or promotions at MIT, she did note that of the post of Special Assistant to the President and Chancellor for Special Matters of Concern to Women, she had not yet been filled.

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CIS director plans change in emphasis

(Continued from page 1)

The next point to consider then would be, "Why ask the question?" (See later section on history of the CIS.) Funding for the study of international problems has taken a nosedive over the last few years. The decline has been so steep that there were serious questions as to whether the volume of research generated by the center per se was sufficient to justify the added administrative expense of continuing its existence.

The decision was made by MIT to continue the center and build it up on the basis of pre-existent expertise, while shifting its focus to more relevant areas. Basically, the thought was that international problems remain important even if society does not put a high value on them (by funneling research money into that area) at this time. Administrators also concluded that MIT has a realistic competitive advantage when compared with other schools doing similar work: its technological expertise. So the shifted emphasis was specifically intended to more fully utilize this advantage.

Skolnikoff characterized the administration as having a "very real concern and commitment to the center, combined with a desire to continue it only if it continues to be a worthwhile entity. They hope that it can prove to be almost self-supporting, at least in terms of direct costs."

The process involved was not, however, an annual effort by the center to justify its existence. "The examination process is being carried out over a long period of time," Skolnikoff said, and is being carried on in a continuous fashion. Although it is not likely to happen in the near future if it ceases to be needed, it will cease to be.

The long-term optimism is based on a conviction that there is still, and will continue to be, money available in the new areas to which the center will be addressing itself. "We are no longer swimming against the tide," stated Skolnikoff.

One example of this is a recently awarded three year grant from the Ford Foundation, known as a "transitional" grant. This non-renewable funding will help to defray administrative costs of the center, as it looks for new money. Ford and the Center both believe that money will be sought to cover the costs. MIT's help to the Center is also based on a similar conviction.

The new direction

Skolnikoff told The Tech that the CIS is now concentrating on problems which are international in name and nature, but related to technology. "That's not very restrictive," he noted, "but it is a different perspective."

The new direction stems partially from Skolnikoff's own academic specialization, science and public policy and technology and international relations. But the shift does not mean that the center will be leaving the social sciences, he emphasized. It only means that CIS will now try to involve new and different disciplines in its work. "We are going to broaden the center's base and give the rest of MIT an increased role," the director said.

Skolnikoff gave several examples of the kind of projects the center is shifting towards:

1) The Center is working jointly with the department of nutrition on a major international nutrition program, involving nutrition planning, research, and advancement in developing countries. The project builds on the technical knowledge available from the nutrition department and the skills of people in social sciences on campus. Harvard is also cooperating in the program.

2) The center is involved in a seminar with people from Harvard and Berkeley on the international implications of technology. The group has only met a few times, but it will eventually try to determine what research directions the most sense in our times. The group is specifically looking at project ideas which cut across broad interdepartmental lines.

Another theme

Another theme which the center will examine is the common international problems of advanced technological societies. One study in this area was recently one of two or three excepted out of a group of 60 that applied in a special Ford Foundation competition. Some sample projects:

1) Economic structures in advanced societies. There has long been an assumption that in developing countries, there is a dual economy, traditional and modern, and that the traditional eventually disappears. It seems as though this may not be true; if there are profound policy implications (a welfare policy that assumes there is no more traditional economy when there is one will fall grossly)

2) European and American universities are combining for a comparative environmental study. Eventually, some Japa

3) The CIS is collaborating with the Center for Policy Alternatives at MIT to make a comparative study of government policies towards technology. Whenever the Public school student serves the American community is in a partial or in a complete capacity, to fulfill the needs of the people, and the support he needs to achieve the goals. The public school student on the mission is to be the people, particularly the people of North America. The issue and problem we face today—inequality, poverty, peace, war,... must be the concern of the student.

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The Democratic Party revival lollies

To the Editor:

Since Fred Fox, the recently resigned contender for the Presidency, has announced in the recently released 1972 Annual Report of the Society, due to his pending court case, that he would have left office if Mr. McGovern had run for re-election and would ask for a vote from confidence from the DNC. Now she doesn't stand a snow-

A. There are those who would say that McGovern lost the election by squabbling among his staff, the inability of the immature kids around McGovern to handle their jobs, the McGovern coalition and win the White House

5. The object of the game is to regain the loss of more than 10,000 members in the third year we have had a report on year-end inventory. Since we only have about 25 overages.

6. Genesco has been left with a $35 million excess. Now, what is the show? Do we have a problem? Will we, at least 24 days, 21 hours, 45 minutes and 19.96 when you asked for a vote of confidence from the DNC?

1. That there are Democrats, pseudo-

2. A. Why doesn't the Society accept Ameri-

3. What we are looking for is a major retail complex in the Square

4. No mention is made of the Bow St.

5. In 1972, with an almost 10% drop in Genesco's sales, since the minimum is $73,800, what was McGovern's contribution to the task facing the Democratic National Committee?

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6. We must have gained retail trade and we must have gained space or time.
A good bridge player must have learned the tale of heads," for last Wednesday's Concordia Forum described the position that scientists played during the ABM controversy.

Cahn, initially recounted a brief history of the development of the ABM system, its faults and the evolution of its trends until its final stage stipulated by the recent SALT talks. After her discussion of the ABM's history, Cahn presented the role of the scientist in his academic and professional capacities in an attempt to prevent the implementation of the system. During the early stages of the ABM, presidential science advisors had consistently advocated the delay of deployment of the ABM due to its imperfections and exorbitant costs. During a meeting in January of 1967, former Defense Secretary McNamara heard four of the President's science advisors and research and engineering assistants voice their disapproval of the ABM system and recommend a delay in its implementation.

Scientists were split into two groups: pro- and anti-ABM. The pro-ABM scientists believed it was improper for a scientist to be active politically, and enter the debate in reaction to the anti-ABM scientist. He also felt that the discussion of the ABM should be technical in nature and subsequently unfathomable by the public and Congress. He felt this obligation to enlighten the masses on the subject. The anti-ABM scientist felt that the technical justifications of the ABM system were not paramount. He felt that the ABM would stimulate the arms race by supplying a new dimension to it. He also felt that the system was feasible, technically or economically.

Cahn interviewed 76% of the active anti-ABM scientists and provided an analysis of their participation. The anti-ABM scientist showed no general pattern of agreement on any particular subject, disregarding the ABM controversy. They did feel an antipathy towards the Department of Defense and Defense officials.

and in length in hearts made a two club bid rather dangerous. East, knowing that his partner had at most sixteen points, could see no hope of game and decided to pass. South was a player who did not like to let his opponents play at the one level. In a situation like this South's one-no-trump bid shows about eleven to fourteen points instead of the usual 16-18 points. Since South knows that North has some points, if East passes West's one heart bid, South knows that East and West together have at most some twenty points between them; therefore, South can essentially bid some of North's cards.

South was about an ace better than he should have been for his bid, but North knew that South hated to pass out a one heart bid rather dangerous. And when length in hearts made a two spade bid, the defense could take one trick by discarding one of his clubs. South was going to bid one no-trump, but East would have six spades to the A Q 10 9. He knew that West had at most five hearts since with six in South's hand, he would have had one. South was pretty sure that West had three spades. If West had four or more spades, he would probably have led one, and if West had two or less spades, East would have had six spades to the queen. East would probably have bid with such a spade holding.

West led the jack of diamonds immediately in an unopposed lead. If he had had only three diamonds, he would almost certainly have led at least a heart or a spade lead. Having concluded that West had five hearts, three spades, and at least four diamonds. South knew West had at most one club.

Accordingly, South cashed the ace of diamonds and East for the queen of clubs to make his contract. Even after playing clubs correctly, South should have been held to eight tricks, but West allowed South to make nine tricks by discarding one of his clubs.

After the hand, South told North that he was sorry that he had bid the full value of his cards.
Pledge raids: the rebirth of a tradition

By Paul Schindler

Years ago, there was a tradition among the house of Kappa Sigma, a fraternity located at 699 Massachusetts Avenue, to commit "pledge raids." It involved the surreptitious removal of an object of symbolic value from one fraternity house by the pledges of another fraternity. It had been the custom of fraternity people that this tradition had died at MIT. In the last few weeks it has become apparent that, at least among some, the tradition was still alive.

In the last three weeks, the following items of symbolic value have disappeared from their fraternities, in approximately this order: three SAE trophies (including a football one), the PGD gong, the DTD trophy, and the PLP flag. In addition, several acts of vandalism have been committed, including the painting of the word FIJI on a window of the DU house (Fiji is a traditional nickname for the DU house), the disappearance of the DU flag (worth about $100), and an attempt to epoxy shut the front door of the Delt house (DTD door only sticks a little, but a lot of fraternity men are disturbed). The DU flag has not yet been returned, although several members of that house reported that they "knew where it was" if it was not exactly where they had last seen it. The DTD door was cleaned, and the DTD door only sticks a little, but a lot of fraternity men are disturbed.

One DU alumus, John Kavanagh '72, who is now House Tutor Else, told The Tech that "we were a little upset only because we were caught in the middle of what seems to be a series of pledge raids."

But line DTD, chair- man of the IFC Judcom, told The Tech that he "can't believe pledge raids, as long as they follow a few guidelines."

Growing hand-in-hand with which he thought were most important:

1) only items not essential to the operation of a house should be raided (flags, trophies);

2) there must be absolutely no destruction of fraternity property; in fact, inform observers believed this to be an admonition against destruction of fraternity property at the attempt to glue the Delt door shut;

3) the raiding fraternity must take complete responsibility for the safety of the removed items. They must not leave them in a public place where someone other than the raided fraternity might find them.

Gromala explained his support of pledge raids by noting that "we want a pledge class more closely and that they can share their spirit and morale in any raid (if informed observers believed this to be an admonition against destruction)."

One other fraternity has it, the Du flag was recovered.

The tradition has never been completely dead: it was within the last few years that one Bay State Road fraternity stole all the flags along Bay State and several from Beacon Street, except for that on the house next door, resulting in an angry crowd gathered at the wrong fraternity and house this means that no curfew for Delta Upsilon.

A PGD representative spoke up at a recent IFC meeting to complain about the raids, noting that his house had been hit hard.

The tradition was even mentioned to incoming freshmen at that fraternity people that this tradition had died at MIT. In the last few years that one Bay State Road fraternity stole all the flags along Bay State and several from Beacon Street, except for that on the house next door, resulting in an angry crowd gathered at the wrong fraternity and house this means that no curfew for Delta Upsilon.

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There was reluctance, enough money to support its stay; what "appealed to them to ask" the Institute to sponsor working with the center's staff, in order to get the center going.

There was classified research brought in by the program that no one involved around. There were three congressional attacks on baring communists on its staff; in addition, a general attack on all of America's major universities was underway, and the Russian "informational" broadcasts which had been in part, by the Central Intelligence Agency. Some of the Gov- ernment's new attitudes toward the study; what appeared to them to be a great deal of propaganda.

A summer workshop held that this was not merely a tech- nical problem, but one in the world of information; what did we wish to say to the world. There were still prayers and why? What did we propose to say to the world in a true commu- nism? The message would be most appropriate in certain countries.

The questions the summer group brought up were: What is the point in going to China? How can we propose a program of the formation of a center to study the technical, political, and social implications of international communication, in re- search and influence on the pop- ulation in the CIS. How did these commu- nications reflect on the rise of the K and in the role of the center's chairperson to the ability of a governance to put down a row against it.

There was a great deal of work done in areas related to politics and the impact of technology and scientific change on the arms race, but it is a matter of how much you want to make the argument, according to Skolnikoff. The CIA view is of the US as an imperialist power, then the CIA would give money to those who already have power.

This was not the pur- pose of the CIS research; such re- search was an effort to under- stand how these systems developed and evolved. In addition, it was noted that the US as an imperialist power theory does not have wide currency among political scientists here.

In the Fall of 1963, Skolnikoff asked the Institute to review and make recommendations. His request was accepted as a likely potential area of support; it was a small area that was under persistent interest. There was reluctance, enough money to support its stay; what "appealed to them to ask" the Institute to sponsor working with the center's staff, in order to get the center going.

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**SPORTS**

**Sailors win 6th trophy, ranked second in nation**

MIT's men's varsity sailing team concluded a highly successful fall season by finishing second of all schools in the Atlantic Coast Championship held at the New York Maritime College in Fort Schuyler, New York, on November 16 and 17.

Alan Spoon '73, with Dean Krook '73 as crew, skipped the MIT A-Division entry, while Steve Cavagnoli '74 represented the team in B-Division, with Bob Longley '73 crewing. The regatta was marked by extremely light winds and a strong current on New York East River.

Tufts jumped out to an early lead in the competition, as they took three firsts and one second in the first four races. Both MIT and NY Maritime, however, gradually narrowed the margin, with some consistently good sailing. The lead changed hands several times among the three schools as the regatta progressed, until going into the final race on Sunday afternoon, MIT and NY Maritime stood tied for the lead.

By that time, the wind had begun to fall and the winds had lightened still further, as the strong current presented some increasingly problems for the sailors.

In the light and fluky conditions, Tufts won the race, to clinch a two-point victory over MIT, with Maritime back in the pack. Individually, Cucciaflo finished third, and Cavagnoli skipped for the regatta.

The results: Tufts 58, MIT 60, New York Maritime 65.

**Wrestlers drop first meet**

By Mike McNamee

Handicapped from the start by injuries, both MIT wrestlers went on to drop their first meet of the season to Boston College 33-6.

Besides the forfeit, caused by MIT's Ed Klee '72 being overweight, the Tech grapplers dropped two pins and six decisions in a very disappointing meet. MIT's matmen had trouble coming out of the gate, and were often tied up by the Terriers' tenacious riding and holds.

In the 115-lb. class, MIT's Ed Fl纳入 "defeated John Hen- derson of BU in a 6-3 decision. Hanley started with a takedown in the first period, and chose the down position to start the second. Scoring on a quick escape, Hanley escaped once more in the second period, and rode out the third for his win.

By Sandy Yulke

This year's IM hockey season, which began last night, has a record entry of 51 teams. There are also some major changes from previous years; there will be no playoffs, and some regular season games will be played during IAP.

The decision not to have playoffs resulted from the questionnaire that was circulated with the entry forms this year. According to the manager, Joel Bergman '72, the rate of response to the questionnaire was near 90% and the teams favored not having playoffs to have more time for regular season games.

In previous years, the majority of the varsity schedule was played at home this year, and this severely limits the amount of ice-time available for intramural games. This lack of ice time, which is further compounded by the fact that the ice rink is closed a great deal due to poor weather conditions, and the freezing system itself, which is ancient and in need of replacement, is a problem. The solution that has been found for this year is to schedule regular season games during IAP. The only teams that will not be playing in January are those that specifically asked not to.

Another change, which will affect only the C League, is a new icing rule. The questionnaire response was overwhelmingly in favor of having the puck called as dead once it has crossed the blue line, previously, a defender had to touch the puck before icing was called. There have been several other changes in IM hockey this year, and all players are advised to check with their captains about them.

**IM hockey: some changes**

By Sandy Yulke

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