

## LETTERS

### Arabs, Israelis and Westerners Attend First Sinai Physics Meeting



**SINAI MEETING ON PHYSICS:** (left to right) Adnan Badran, UNESCO's assistant director general for science; Venice Kamel Goudah, the Egyptian minister of state for scientific research; Sergio Fubini, who conceived the meeting; Jacob Ziv, of the Israel Academy of Sciences and Humanities. (Photo courtesy of Maurice Jacob, CERN.)

Success for the Middle Eastern peace process relies on encouragement and support from people of goodwill in all segments of society, both within and outside of the region. Last year, theoretical physicists contributed to this effort by organizing the first Sinai Meeting on Physics, in which physicists from the Arab world, Israel and the West met for a week in November at the Egyptian resort of Dahab, on the Gulf of Aqaba.

The idea for such a meeting, which would bring Arab and Israeli physicists together for the first time, originated with Italian physicist Sergio Fubini of the University of Turin. Working with Alberto Devoto of the University of Cagliari, he secured funding from Italian and Israeli sources, and obtained sponsorship from high-ranking government science officials in Egypt and Italy and at UNESCO. They also got support from the International Center for Theoretical Physics, as well as from CERN.

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Convened on 19 November, the meeting was addressed by Egypt's minister of state for scientific research and UNESCO's assistant science director general (Italy's science minister had to send his greeting *in absentia*, owing to an obstacle familiar to American attendees: parliamentary budget battles). And presentations were made by ICTP's new director, Miguel Virasoro, and by CERN's representative to member states, Maurice Jacob.

Lectures on physics made up an important part of the meeting. The participating Americans were So-Young Pi of Boston University, explaining inflationary cosmology; Edward Witten of the Institute for Advanced Studies, talking about monopoles; Roman Jackiw of MIT, speaking on symmetry behavior in quantum theory; and Robert Laughlin of Stanford University, covering high- $T_c$  superconductivity. Additionally, several other American physicists attended the meeting to establish or renew contacts with colleagues from Arab countries.

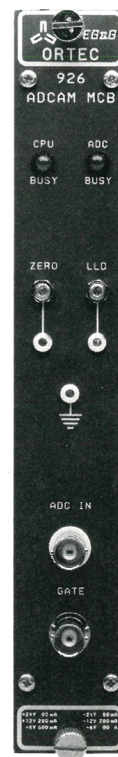
The meeting attracted about 120 participants. Roughly half of them were students and young researchers; the other half consisted of science administrators and active senior physicists. The Arab world, Israel and the

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<sup>1</sup>Ron Jenkins, R.W. Gould, and Dale Gedcke, *Quantitative X-Ray Spectrometry* (New York: Marcel Dekker, Inc.), 1981, pp. 266-267.

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West were more or less equally represented. The majority of the Arab attendees were from the host country, Egypt, but there were also some from Jordan, Morocco and elsewhere.

The presence of Palestinian physicists from various West Bank universities was especially noteworthy. Contact with them was first established by Fubini and Devoto, with the help of Denis Hill, a schoolteacher in Switzerland. The Palestinians' attendance was facilitated by the Israeli government because they had to travel through the Israeli city of Elath, which is normally closed to Palestinians. But through the strenuous efforts of the leader of the Israeli delegation, the Hebrew University of Jerusalem's Eliezer Rabinovici, the Palestinians got travel permits and made the journey to Dahab on the same bus as the Israelis.

For the Palestinian physicists, the Dahab meeting provided the first opportunity for them to participate in a physics event as a recognized national group. This clearly mattered a great deal to them; while most participants identified themselves in terms of their professional affiliations, the Palestinians wanted it known that they were from Palestine.

Although academic institutions are quite ancient in the Arab world—Cairo's Al-Azhar University may well be the oldest university in the world, having functioned for over a millennium—physics as an academic discipline is quite recent. Knowledge of modern research, especially in particle physics and mathematical physics remains scant. This was evident from the many questions—both formal and informal—put to the lecturers by the Arab attendees. There was also much talk of curriculum content and development; PhD physics programs in the Middle East region exist only in Egypt and Israel.

One came away from Dahab with the impression that Arabs have great enthusiasm for and interest in our subject. Given the chance, it seems that physics, especially its less-abstract branches, could flourish quite vigorously. Such development could be fueled by easy access to Israel's strong physics departments and to the Trieste-headquartered ICTP, whose mission is to foster the development of physics in countries without a previous presence in the field.

The Dahab meeting seemed to please the participants, and one felt that a useful first step had been taken. Official agreements are now being concluded to hold a second such meeting later in 1996, and individual institutions are forging arrangements

to support reciprocal visits between Arab and Israeli institutions. In coming years, further opportunities will likely present themselves, especially for young Palestinians, who for a generation had little possibility of advancing in physics or any other field. (In recent years, Edward Witten has made it a practice to lecture at university physics departments on the West Bank, thereby giving young Palestinians their only exposure to modern topics.)

On reflection, it appears that, in the past, physicists' contributions to the resolution of international conflicts was confined to armament questions for one side or the other. Here, with the first Sinai Meeting on Physics, held only two weeks after the assassination of Israeli prime minister Yitzhak Rabin, we have embarked on a different path, using our discipline as a vehicle for understanding and co-operation. Someone at Dahab drew an analogy with CERN: Given that, following World War II, the European combatants worked jointly and successfully in physics, it may be that the Dahab meeting will lead to a similar evolution in the Middle East.

The setting of the Dahab meeting also enabled the attendees to obtain an understanding of the Sinai in both real and symbolic terms. They ventured out into the gulf to observe the remarkable flora and fauna of a living coral reef. They climbed Mt. Sinai (*Jabal Musa* in Arabic, meaning the "Mount of Moses") to visit Christianity's oldest monastery, St Catherine's, within whose precincts there is also a mosque, as well as a descendant of the burning bush near which Moses conversed with God. And, half-way through the meeting in Dahab, they directly experienced one form of the instability that still plagues the Middle East: an earthquake that registered 7.2 on the Richter scale.

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## Medical Physics Is a Demanding Profession

I would like to add a note of caution to G. Donald Frey's perspective on the medical physics profession (November 1995, page 11).

I get pleasure from demonstrating my medical physics specialty (radiation oncology) to basic physicists, but a frequent reaction is, "This doesn't seem that hard." They need to know that there is more to medical physics than simply applying basic physics principles to medical problems. Basic physics students should definitely be

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