

XVIITH INTERNATIONAL SCHOOL FOR YOUNG ASTRONOMERS

Final Report

The School was announced well ahead in IAU Inf. Bull. Moreover detailed information on the School (Encl. 1) was also sent to most institutions in the Southeast Asian region and less extensively to the remainder of Asia.

By the 31 of March closing date 31 applications were received. 28 of them were accepted. Each participant was sent a complete set of important information on Malaysia and on the School: general information on passports and visas, the School timetable and contents of lectures, and open letters to the Malaysian immigration department and the Malaysian custom (Encl. 2).

The School Started on 28th May, 1990 with an opening ceremony at the Universiti Kebangsaan Malaysia (Encl. 3). The School booklet was distributed which contained information on all sponsoring bodies (Encl. 4) and the organising committee.

The final list of participants is found in Encl. 5 .

The timetable of Lectures is in Encl. 6 . The list of lecturers is found in Encl. 7 .

Each participant presented a seminar on his/her own work or their institution (Encl. 8).

Practical observing sessions were held every clear night. The Travelling Telescope and the UKM Meade Telescope were used for visual, photometric, photographic and spectrographic observations in the night and for solar observation during less cloudy days. Each participant was assigned a compulsory observing session at night (Encl. 9).

Interaction between participants and lecturers was actively promoted by the lecturers during lectures, meals and excursions.

Apart from the classroom lectures, lecturers also gave public lectures (Encl. 10). These lectures enhanced the promotion of astronomy in Malaysia. The public was well informed on the School by reports published in various newspapers.

Evaluation of the School by participants and lecturers was done through an evaluation form (Encl. 11). At the closing ceremony on June 15 each participant received a certificate (Encl. 12).

In free time excursions to historical monuments and cultural events were organised (Encl. 13).

The financial report will be sent to IAU General Secretary as soon as all necessary data will be at our disposal.

Enclosures

1. Detailed announcement
2. Information to all participants and lecturers
3. Opening Ceremony
4. The School booklet
5. List of Participants
6. Time Table
7. List of Lecturers
8. Seminar Schedule
9. Observing Sessions
10. List of Public Lectures
11. Evaluation form
12. Certificate
13. Cultural Activity



cc. Professor Mazlan Othman
Director of the School



Professor Josip Kleczek
Secretary of the School

XVIIITH INTERNATIONAL SCHOOL FOR YOUNG ASTRONOMERS

Melaka, Malaysia, 1990 May 28-June 15

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Professor Mazlan Othman
Director of the School

INTERNATIONAL ASTRONOMICAL UNION

UNION ASTRONOMIQUE INTERNATIONALE

IAU and UNESCO

INTERNATIONAL SCHOOL FOR YOUNG ASTRONOMERS

IAU General Secretary

98bis, bd Arago

F-75014

France

Secretary: J. KLECZEK
Astronomical Institute
251 65 ONDREJOV
Czechoslovakia

Phone: Praha 72 45 25
Telex 121579

June 28, 1990

XVIIth International School for Young Astronomers - Financial Report part A: Travel Expenses:

- 1/ David Allen US \$ 916,-
- 2/ Pierro Benvenuti (expenses covered by other sources)
- 3/ Dieter Brueckner (transport including Telescope - Air Canada,
additional expenses will announce John Percy)
- 4/ George Kaplan US \$ 1578.25
- 5/ Josip Kleczek paid in Francs, please convert in US \$ ¹⁵⁸⁰
- 6/ Tomokazu Kogure (US \$ 1038.-, but he will receive additional
reduction - please wait till it comes)
- 7/ Yoshihide Kozai (expenses covered by other sources)
- 8/ Sadanori Okamura US \$ 860,-
- 9/ Mazlan Othman US \$ 320,-
she paid from her own pocket: D. Wentzel for train
Singapur-Kuala Lumpur US \$ 80,-; for D. Brueckner
flight Singapore-Kuala Lumpur US \$ 120,-; allowance
for three Russian colleagues-each 40.-US \$..120 US \$.
- 10/ John Parkinson (he flew to South Korea and stopped in Kuala
Lumpur to lecture). Please, IAU should pay the diffe-
rence between what he actually paid (650.00 £) and
direct flight London-South Korea.
- 11/ Kandy Shivanandan (expenses covered by other sources)
- 12/ Donat Wentzel (see 9, other expenses covered from other sources)
Please send him kindly US \$ 20,00 (which he paid

-2-

for the Russian astronomer Alexander Panferov (taxi from airport Kuala Lumpur to the School site)) - to Prof. Wentzel's address.

13/ Arwind Kumar Lal from India had to borrow money to pay for his ticket (Rupees 6992 - about 332.00 US \$). As Prof. Mazlan Othman could support only travel expenses from South East Asia - she could not help him. Would it, please be possible to contribute to his air fare? May I suggest 160 - 200 US \$? His month salary is about 90,00 US \$. Thank you.

The addresses of lecturers and young participants are in the Final Report (Encl. 7 and 5). The Final Report has been sent to you from Malaysia on June 14. Could you please kindly send the travel expenses to 1/ David Allen, 4/ George Kaplan, 8/ Sadanori Okamura, 9/ Mazlan Othman, 12/ Donat Wentzel and if possible the support to 13/ Arwin Kumar Lal as soon as possible? As for the other items (3/ Brueckner - John Percy for Travelling Telescope; 10/ John Parkinson - finding out the extra expenses; 6/ Tomokazu Kogure - he will send a reduced price invoice), please send the money after having received the expected information)

As for 2/ Piero Benvenuti: A) Could The IAU President kindly send a letter thanking Prof. R. Bonnet, ESA H/Q Paris B)) and (The IAU Secretary a letter to Dr. B. G. Taylor, SSD-A ESTEC, Noordwijk expressing thanks for the important help to the School by lectures of Piero Benvenuti. 3/ Could IAU President also thank to AIR CANADA for providing free transport to Telescope and accompanying person (the letter addressed to Ms Francine Vallée Ouellet) and IAU Secretary to Eastman Kodak Company (Ms. Sally Robson) for providing gratis the photographic materials

for the Travelling Telescope. Addresses and more detail as for the letters - Encl. 3.

(-Part B -)

The other part of the Financial Report, covering the local sources, will be sent to the IAU General Secretary by the Director of the IAU XVIIIth School as soon as she will get all the necessary documents and data.

Enclosures for items: 1/ Allen, 3/ Brueckner - Travelling Telescope, 4/ Kaplan, 5/ Kleczek, 6/ preliminary invoice Kogure 8/ S. Okamura and 13/ A.K. Lal.

Copy to: Dr. Mazlan Othman - Director of the School

Dr. A. Sandquist - Comm. 46 President

Josip Kleczek
Josip Kleczek

Secretary of the School



يونيڤرسيتي ڤنڤساڤان ملايسيا

UNIVERSITI KEBANGSAAN MALAYSIA

43600 BANGI, SELANGOR.

Telegram "UNIKEB" No. Tel. 8250001, 8250601, 8250701 Telex: UNIKEB MA 31496.

v Budget

12 Mac 1990

Dr. D. McNally
University of London Observatory
Mill Hill Park
London NW7 2QS.

Dear Derek,

You have heard from John, I'm sure, that British Council has turned us down. UNESCO has officially turned us down also.

I'm slowly finding out that when it comes to financial ^{support} output, something like astronomy is not top priority ~~or~~ or 'worthwhile' (in the words of some people in British Council).

We are getting George Kaplan from the US Naval Observatory to come. I have to find money for him as well because the mechanism for getting grants to get speakers from US is even more non-existent here in Malaysia. One grant offered apparently requires an application two years before the event. That's effectively saying they don't want to give the money. If I don't get the grant from the Australian Embassy that's one more ticket I have to provide plus if I don't get a grant from JICA (Japan) I also have to foot the ticket price.

Enclosed is a budget for the School. Since Don Wentzel can cover the solar physics and the ^{Prof. Benvenuto} ~~ESA~~, as well as Prof. Kleczek, can cover high energy astrophysics, John Parkinson's presence is at the moment not top priority.

Thank you.

Yours sincerely,

ASSOC. PROF. DR. MAZLAN OTHMAN
Physics Department
Universiti Kebangsaan Malaysia.

/nals.

ISYA BUDGET

Lecturers

Board and lodging	Total 132 days @ \$25/day	3300
Airface	Kleczek	1700
	Allen	1000
	Kogure	1000
	Kaplan	1800
Honorarium	90 hours x \$15/hr	1350
		<hr/>
		10,150
		<hr/>

Participants

Board and lodging	30 pax x 23 days @ \$15/day	10350
Partical travell support		1700
		<hr/>
		12,050
		<hr/>

Others

Telex, post and fax		2000
Rent of lecture room		1050
Internal travel (including excursions)		2000
Traveling telescope		200
Opening ceremany		500
Printing etc		2000
Secretarial		500
		<hr/>
		8250
		<hr/>

Grand total 30,450

Contributions

ICTP		5000
IAU (According to J. Kleczek)		9000
COSTED		600
Universiti Kebangsaan Malaysia		9000
		<hr/>
		23600
		<hr/>

SPONSORS



Universiti Kebangsaan
Malaysia



International Astronomical
Union



International Centre for
Theoretical Physics



Committee on Science and
Technology in Developing
Countries



Islamic Affairs Division, Prime
Ministers' Department



Islamic Educational Scientific
and Cultural Organisation

INFORMATION

For more information write to:

Assoc. Prof. Dr. Mazlan Othman,
Director,
International School For Young
Astronomers,
National University of Malaysia,
43600 Bangi, Selangor,
MALAYSIA.

Telegram : "UNIKER"
Telex : 31496 MA UNIKER
Telefax : (603)-8256086
 : (603)-8256484
Telephone : (03)-8250001,
 : 8250601,
 : 8250701

enclosure 1

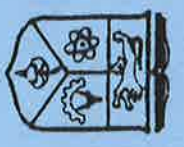


XVII IAU-ICTP INTERNATIONAL SCHOOL FOR YOUNG ASTRONOMERS

Organised by
Physics Department,
Universiti Kebangsaan Malaysia
and
Subgroup on Astronomy and Space Science
Malaysian Institute of Physics

Place
Universiti Kebangsaan Malaysia
and
Maritime Academy of Malaysia, Melaka
(ALAM)

Date
28th May - 15th June 1990



OBJECTIVES

To train individuals in the field of astronomy to enable them to return home to their home countries with the ability to carry out activities related to astronomy.

Lecturers and participants will at all times be encouraged to intermingle so as to promote close interaction which will lead to future collaborations which are inter-regional or intra-regional in nature.

For Malaysia it will be the first time such an activity will take place. Malaysia has a growing need for professional astronomers, as evident in the growing number of planetaria planned and of colleges/universities planning to incorporate astronomy at the various levels of teaching. Astronomy is expected to be included in the new national secondary school syllabus in 1991.

REGIONAL ISSUES

As astronomical and space science instruments are expensive, particular attention will be paid to how exchange of astronomers in the region may be encouraged and how collaborative research may be established. For this reason experts from Australia and Japan have been invited to participate in the School as these countries have the necessary equipment.

Data from space is available in the major observatories of the world. Particular emphasis will be placed on how such data may be accessed by astronomers in the region. A representative from the European Space Agency will be present to address this issue.

Design, construction and utilization of small telescopes as well as auxiliary measuring equipment will be included in the syllabus of the School.

ACTIVITIES

Apart from attending lectures each participant will be required to present a seminar on the state of astronomy in his/her country and talk about his/her scientific research or topic of interest.

Excursions will be organized during the weekends.

REGISTRATION

There is no registration charge. The cost of food and accommodation is as follows:

Outstation participants staying in INTAN (KL) and ALAM \$600.00
Participants staying in ALAM only \$500.00

Payment shall be made out to 'Bendahari UKM'. Cheques should be sent through the Director and should be received before 15 th. May, 1990.

A special series of lectures on positional astronomy is planned specifically to assist nations in the region to produce their own almanacs, tailored to meet the individual needs of the nations.

SCIENTIFIC PROGRAMME

TOPICS	INVITED LECTURERS
Solar Physics	Prof. D. Wentzel (USA)
Modern Astrophysics	Prof. J. Kleczek (Czech) Prof. Benvenuti (ESA) Dr. John Parkinson (UK)
Galactic Astronomy and Cosmology	Prof. S. Okamura (Japan)
Stellar Astronomy	Dr. D. Allen (Australia) Prof. Kogure (Japan)
Positional Astronomy	Dr. G. Kaplan (USA) Mr. Majid Hamid (Malaysia)
Instrumentation for Small Telescopes	Mr. D. Bruckner (Canada) Dr. Mazlan Othman (Malaysia) Dr. K. Shivanandan (USA)

INTERNATIONAL SCHOOL FOR YOUNG ASTRONMERS

Information to all participants and lecturers

1. Transport from airport to Kuala Lumpur/Melaka

To all arriving before 2nd June 1990

If you give us ample notice we will collect you at the airport. But should such arrangements go awry please do the following:

- a) Go to the taxi counter at the airport
- b) Tell them your destination:

INTAN (Institut Tadbiran Awam)
Bukit Kiara, Kuala Lumpur

and buy the coupon (cost is less than M\$20)

- c) Inform the guard at the entrance of INTAN that you are a participant of ISYA.

The lecturers who arrive after 2nd June 1990 and for some reason we do not collect you, please do the following:

- a) Go to the taxi counter at the airport
- b) Tell them your destination:

Puduraya bus station
Kuala Lumpur

and buy the coupon (cost is less than M\$20)

- c) When you are at the Puduraya bus station take a taxi (^{second} floor) which will take you to the Maritime Academy:

Akademi Laut Malaysia (ALAM)
Kuala Sg. Baru, Melaka
(tell taxi driver to take turn off at Pedas/Linggi from Negeri Sembilan Highway - most of them speak English).

Cost of taxi M\$60 if you are travelling alone in the taxi. The way to ALAM is well signposted.

- d) Inform the guard at the entrance of ALAM

2. Transfer to ALAM

On 2nd June all participants and lecturers will be transferred from Kuala Lumpur to Melaka. Transportation will be provided.

3. Social Activities during the School

During the School there will be excursions to the following during the weekends:

- a) historical sites
- b) tropical forest
- c) the beach

For this purpose a good pair of walking shoes will be required (sneakers are sufficient).

There will opportunity for tennis, swimming (in the pool) and badminton in ALAM during the week hence you may bring the appropriate equipment/ attire.

You will probably be attending at least one dinner given by a state government and the appropriate attire is long sleeve shirts for men. For ladies, a long sleeve blouse and long pants/skirt will be necessary for some occasions.

You will be taken to at least one cultural show and there will be opportunity for shopping for handicrafts on one afternoon in the 1st week and possibly one more in the second week.

4. Accommodation

Accommodation is hostel-like both in Kuala Lumpur and Melaka. All participants will be sharing rooms. Each room has a bathroom attached, a ceiling fan, 2 desks, 2 cupboards and a refrigerator. As far as possible lecturers will be given single rooms which are airconditioned (carpetted and with TV and refrigerator).

At ALAM a common room will be available where notices will be placed and where everyone may relax. It is, of course, better if we sit outside in the garden and watch the sun setting or the stars rising.

5. Weather

The weather is hot and humid throughout the year. The lecture rooms will be airconditioned for your comfort.

INTAN is situated in a green area on a hill and is therefore not too hot at night.

ALAM is situated by the seaside so it is less humid and is more breezy.

6. Lectures

All lectures in Kuala Lumpur will be held in the Physics Department, Universiti Kebangsaan in Bangi. Transportation from INTAN to Bangi will be arranged. All lectures at ALAM will be held in a lecture room close to the hostel.

7. Lecture room facilities

All lecture rooms will have an OHP and a slide projector. In ALAM a BARCO system is available. Video and film reel projectors will be made available.

Please inform me if you have other requirements.

8. Seminars

Seminars by participant will be arranged in the evenings after dinner.

9. Meals

Meals will generally be Malaysian. The Malaysian cuisine is a mixture of Malay, Chinese and Indian food. We will attempt to ensure each meal will have a variety of spicy and non-spicy food.

10. Telescope facilities

The Canadian government will make available a Celestron 8" telescope with spectrograph and photographic accessories.

If you have projects you want to carry out, please bring the necessary equipment with you so that other participants may share the experience.

Unfortunately there are no dark room facilities in ALAM but I am given to understand that a limited amount of photography may still be carried out.

11. Departure

Participants please ensure your departure is as close as possible to 15th June. I will have problems accomodating you if you leave too late. As far as possible we will provide transport to the airport.

12. Departure tax

The departure tax is M\$15 for international flights. To Singapore the tax is M\$5.

13. Date and time of arrival and departure

Please telex/fax information about your arrival and departure as soon as your flights are confirmed.

14. Addresses

Please note the following information:

National University of Malaysia
43600 Bangi, Selangor
Malaysia.

Telegram : "UNIKEB".
Telex : 31496 MA UNIKEB
Telefax : (603)-8256086
 : (603)-8256484
Telephone : (03)-8250001
 8250601
 8250701

Maritime Academy of Malaysia (ALAM)
Box 31
Kuala Sungai Baru .
78207 Melaka.

Telefax : 556700
Telephone : 556206

GENERAL INFORMATION

Passport : Visitors to Malaysia must be in possession of a valid national passport or other internationally recognised travel document endorsed for travel to Malaysia.

Visa : Commonwealth citizens (except from India), British Protected persons or citizens of the Republic of Ireland and citizens of Switzerland, Netherlands, San Marino and Lichtenstein do not need a visa to enter Malaysia. United States citizens do not require a visa for social business visits and student pass. Citizens of Austria, Belgium, Denmark, Finland, France, Ireland, Italy, Japan, Luxembourg, Norway, South Korea, Sweden, Tunisia and West Germany do not require a visa for social or business visits not exceeding three months.

One Month Visa Free Visit : Citizens of ASEAN countries do not need a visa for a visit not exceeding one month.

14-Day Visa Free Visit : Transit and non-transit tourists are eligible for the 14-day visa free visit to Malaysia EXCEPT those from Albania, People's Republic of China, Israel, Kampuchea, Laos, Mongolia, Taiwan, North Korea, Zimbabwe, Republic of Transkei, South Africa and Vietnam.

7-Day Visa Free Visit : Citizens of Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania, Russia and Yugoslavia are allowed to enter Malaysia for a period of up to 7 days for social and business visits only.

(The above entry regulations are subject to changes).

Health : No cholera or smallpox vaccination is required for travellers entering Malaysia. Yellow Fever vaccination is required for arrivals from infected areas and from yellow fever endemic zones except for children under one year of age.

Currency and Financial Services : The Malaysian Dollar is equivalent to approximately US\$0.40. There are foreign exchange counters in Subang International Airport. Travellers cheques and major credit cards are readily accepted in Malaysia at banks and in most hotels.

Weather and Dress : The weather is warm and humid. Diurnal temperature ranges between 24°C to 33°C. Light casual clothing is appropriate for the Conference.

Electricity Supply : Electrical appliances should be suitable for 230 V/50 Hz.

Local Transportation : Buses will be provided to shuttle participants.

INTERNATIONAL SCHOOL FOR YOUNG ASTRONOMERS

Tentative Programme

<u>Tentative Programme</u>	<u>Topics</u>	<u>Lecturers</u>	
1st week: in Kuala Lumpur	Solar Physics	Kleczek	(8 hrs)
	High energy astrophysics	Wentzel	(10 hrs)
		Benvenuti Bruckner	(6 hrs)
		Kozai	(3 hrs)

		27 hrs	

2nd week: in Melaka	Stellar astronomy	Allen	(8 hrs)
	Positional astronomy	Kogure	(6 hrs)
	High energy astrophysics	Kaplan	(12 hrs)
		Parkinson Bruckner	(5 hrs)
		Othman	(2 hrs)

		33 hrs	

3rd week: in Melaka	Galactic astronomy	Okamura	(12 hrs)
	Solar physics	Wentzel	(2 hrs)
	Instrumentation	Shivanandan	(3 hrs)
		Parkinson Benvenuti	(5 hrs)
		Kogure	(4 hrs)
		Majid	(2 hrs)

		26 hrs	

	Total lectures	90 hours	
	Participants seminars	10 hours	
	Group Discussions on regional cooperation	2 hours	

	Grand Total	102 hours	

The daily sessions will be as follows:

8.30 - 10.30	Lecture
10.30 - 11.00	Morning tea
11.00 - 13.00	Lecture
13.00 - 14.30	Lunch
14.30 - 15.30	Lecture/Lab session
15.30 - 15.45	Afternoon tea
15.45 - 17.30	Lecture/Lab session

INTERNATIONAL SCHOOL FOR YOUNG ASTRONOMERS

CONTENTS OF LECTURES

I. KOGURE

Stellar Astronomy

1. Historical Aspect

- ▶ Brief summary of the development of stellar astronomy in Japan, including some future plans in 1990's.

2. Basic Concepts

1) Stellar spectroscopy

Observational procedure: telescope + spectrograph + detector
data analysis

Roles of small telescopes

- 2) Stellar atmospheres and spectral line formation
- 3) Stellar envelopes and formation of emission lines
- 4) Stellar winds and mass-loss phenomena

3. Early-type Stars with Emission Lines

- 1) Early-type stars: General properties
- 2) WR and P Cyg type stars: spectroscopic models
- 3) Be stars: spectroscopic models and some recent topics

4. Pre-Main Sequence Stars

- 1) Concepts of stellar evolution and pre-main-sequence stars
- 2) Herbig Be/Ae stars: optical and molecular-line observations
- 3) T Tauri type stars: observational aspects
- 4) Emission-line stars in the Orion region: survey and spectroscopic observations, star formation processes in the Orion region.

DON WENTZEL

Solar Physics

- 1) outline sun from center out to wind. Movie of prominence activity

- 2) photosphere to corona: temperatures and a few diagnostic spectrum lines. Exercise with four photographs.
- 3) "Derive" coronal temperature from heat conduction. Movie "Solar Atmosphere".
- 4) Solar wind, coronal holes. X-ray movie.
- 5) Visualization of magnetic fields, flux tubes. Some of my MHD exercises in Kleczek's book on astronomy exercises.
- 6) Magnetic forces, "frozen-in fields". Maybe some more MHD exercises. End with SMM movie of transients.
- 7) Solar (and stellar oscillations)

JOSIP KLECZEK

High Energy Astrophysics

- 1) Elementary Particles and Structure of the Universe.
- 2) Four Interactions and Evolution of the Universe.
- 3) Photonic Universe.
- 4) Nucleosynthesis and Chemistry of the Universe.
- 5) Matter and antimatter. Its states and transitions.
- 6) Neutrino Universe.

BENVENUTI (ESA)

ESA Astronomy from Space

- 1) The source of data: astronomical space observatories
- 2) The archives of data: where are they? how can they be accessed?
- 3) The analysis of data: major software systems for the analysis of astronomical data.

DAVID ALLEN

Stellar Astronomers

- 1) The AAT and its role in stellar astronomy.
- 2) Australian radio telescopes and radio star observations.

- 3) Interacting binaries (cataclysmic variables, novae, symbiotic stars, X-ray binaries).
- 4) supernovae, primarily 1987A.
- 5) As a small topic, the stars at the centre of the Galaxy.

OKAMURA

Galactic Astronomy and Observational Cosmology

1) Introduction to Optical Observations of Galaxies

Optical Telescopes
 Imaging Observation
 Photoelectric Photometry
 Spectroscopy
 Wide-Field Spectroscopic Observations

2) Fundamental Properties of Galaxies

Components of Galaxies
 Classification of Galaxies
 Rotation and Mass
 Intrinsic Flattening
 Abundance and its Gradient
 Spectral Energy Distribution and Population Synthesis
 Correlations of Integrated Properties with Morphological Type

3) New Discoveries (mid 1970's - 1980's)

Dark Matter
 Dynamics of Spheroidal Stellar Systems
 Dwarf Galaxies
 Environmental Effects
 Systematic Properties of Bulges and Disks
 Large-Scale Structure of the Universe

4) Observational Cosmology

Determination of the Deceleration parameter
 Distance Indicator Relations
 Determination of the Hubble Constant
 Deviations from the Hubble Expansion

Summary: How Far Have We Seen the Universe?

Large-Scale Structure
 Quasars
 Lyman Alpha Clouds
 Cosmic Microwave Background Radiation

K. SHIVANANDAN

Instrumentation for Infrared astronomy

D. BRUCKNER/I. SHELTON

Observing with a small telescope

G. KAPLAN

Software for an almanac

MAJID HAMID

Lunar Visibility

MAZLAN OTHMAN

IRAS observations of late type stars

Y. KOZAI

Minor Planets



بونیورسیتی کبھسا از ملیسیا

UNIVERSITI KEBANGSAAN MALAYSIA

BANGI, SELANGOR, MALAYSIA.

Telegram "UNIKEB" No. Tel. 350001, 350601, 350701. Telex: UNIKEB MA 31496

24th April 1990

The Customs Officer
Malaysian Immigration Department
Subang International Airport.

Dear Sir,

The carrier of this letter is a lecturer at the International School for Young Astronomers organised by Universiti Kebangsaan Malaysia between 28th May to 15th June 1990.

To assist in his lectures he will be bringing with him books/ scientific papers/slides/films/video tapes on Astronomy. We would very much appreciate it if you could expedite his clearance through Customs.

Your cooperation in this matter is highly appreciated.

Yours sincerely,

Associate Professor Dr. Mazlan Othman
Physics Department
Universiti Kebangsaan Malaysia

ENCLOSURE 3

IAU - ICTP
**INTERNATIONAL SCHOOL
FOR
YOUNG ASTRONOMERS**

28th May - 15 June 1990

Dikelolakan oleh

**Universiti Kebangsaan Malaysia
Akademi Laut Malaysia
Institut Fizik Malaysia**

**XVIIth INTERNATIONAL SCHOOL
FOR YOUNG ASTRONOMERS
ATURCARA PERASMIAN**

- 28hb Mei 1990 Bilik Majlis, Universiti Kebangsaan Malaysia
- 0900 Ketibaan para jemputan
- 0930 Ketibaan Y.B. Dato' Dr. Yusof Noor
Menteri di Jabatan Perdana Menteri
- 0935 Ucapan Pengerusi Jawatankuasa Pengelola
- 0940 Ucapan Naib Canselor Universiti Kebangsaan Malaysia
- 0950 Ucapan Presiden International Astronomical Union
- 1000 Perasmian oleh Y.B. Dato' Dr. Yusof Noor
- 1020 Penyampaian hadiah teleskop dari Universiti Toronto kepada UKM
- 1030 Gambar kenang-kenangan
- 1040 Minuman ringan
- 1130 Ceramah Umum
Hubble Space Telescope: The Latest Results
oleh Prof Piero Benvenuti, European Space Agency
Perpustakaan UKM Tingkat 2.

**XVIIth INTERNATIONAL SCHOOL
FOR YOUNG ASTRONOMERS
OPENING CEREMONY PROGRAMME**

28th May 1990 Bilik Majlis, Universiti Kebangsaan Malaysia

- 0900 Arrival of invited guests**
- 0930 Arrival of Hon. Dato' Dr. Yusof Noor
Minister, Prime Minister's Department**
- 0935 Speech by Chairman, Organising Committee**
- 0940 Speech by President, International Astronomical Union**
- 0950 Speech by Vice Chancellor, Universiti Kebangsaan Malaysia**
- 1000 Official Opening by Hon. Dato' Dr. Yusof Noor**
- 1020 Presentation of telescope donated by University of Toronto to UKM**
- 1030 Official photograph**
- 1040 Morning tea**
- 1130 Public Lecture**

Hubble Space Telescope: The Latest Results

by Prof Piero Benvenuti, European Space Agency

SIRI CERAMAH UMUM

Sempena

INTERNATIONAL SCHOOL FOR YOUNG ASTRONOMERS

'Hubble Space Telescope - The Latest Results'
Prof. P. Benvenuti, European Space Agency
8 pm
29hb. Mei 1990
Auditorium Pusat Islam, Kuala Lumpur.

'Astronomy for Schools'
Prof. J. Kleczek, Astronomical Institute,
Czechoslovakia
8 pm
30hb. Mei 1990
Pusat Perkembangan Kurikulum, Kuala Lumpur.

'Stars and Man'
Dr. D. Allen, Anglo Australian Observatory,
Australia
8 pm
6hb. Jun 1990
Bangunan Yayasan Negeri Sembilan, Seremban.

'The Restless Sun'
Prof. D. Wentzel, University of Maryland
8 pm
12hb. Jun 1990
Auditorium Institut Pengajian Tinggi,
Universiti Malaya,
Kuala Lumpur.

Enclosure 4

The XVIIIth International School for Young Astronomers

28 May 1990 - 15 June 1990





Sambutan Perayaan
Ulang Tahun Ke-20
Universiti Kebangsaan Malaysia



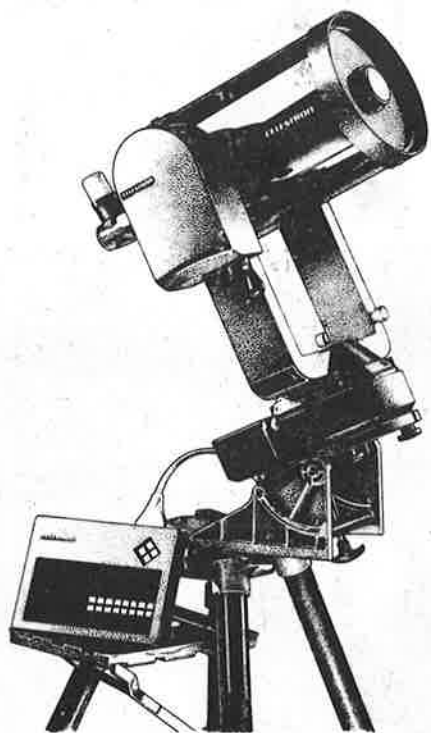
Layout & Design:
Ahmad Azlan Mohd Yasir
Committee,
XVIIth International School
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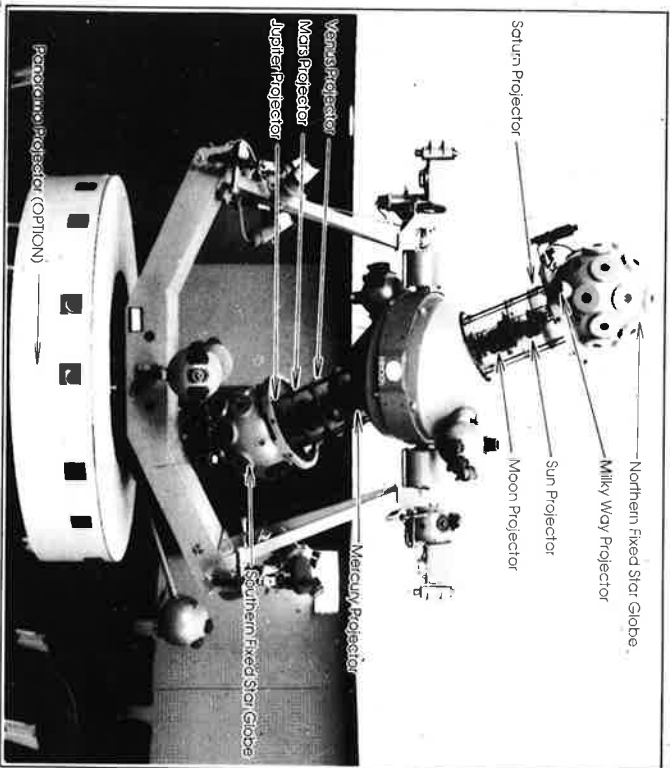


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Properties of globular clusters in the Galaxy and the external
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X-ray binary systems, Particle accelerations

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X-Ray Binary systems (observations in optics)
B-C stars (of AC/BE Herbig type)

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Solar Astronomy
Flares & Prominences

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Astrophysics, cosmology, solar astronomy

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Astronomy education.

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Astronomy education

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Almanac and General Astronomy

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Special Astrophysics Observatory
Nizhniy Azhnyz Skavropol Territory, USSR.

Unique galactic object SS 433

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Optical Astronomy
X-ray Astronomy

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Solar Physics

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Neutrino Problem and its effects on current understandings of the laws of physics

ROSLI H. MAHAT
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Cosmic Rays

MUSFOFA DIN B. SUBARI
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University of Technology Malaysia
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Star almanac, ephemeris & catalogues

48bul RAHMANU & DWARK
Pik D (Kansas State)
Universiti Kebangsaan Malaysia
43600 Bangi, Selangor, Malaysia
Almanac and ephemerides

SECOND WEEK

DATE	TIME DAY	08.30 - 09.30	09.30 - 10.30	10.30 - 11.00	11.00 - 12.00	12.00 - 13.00	13.00 - 14.30	14.30 - 15.30	15.30 - 16.00	16.00 - 17.00	Evening
4/6	MON	KOGURE	KOGURE		ALLEN	ALLEN		KAPLAN		KAPLAN	Seminar (6)
5/6	TUES	PARKINSON	PARKINSON		KOGURE	KOGURE		KAPLAN		KAPLAN	PUBLIC LECTURE
6/6	WED	ALLEN	ALLEN		PARKINSON	PARKINSON		PARALLEL		PARALLEL	
7/6	THURS	PARKINSON	PARKINSON		KOGURE	KOGURE		PARALLEL		PARALLEL	
8/6	FRI	ALLEN	ALLEN		KOGURE			PARALLEL		PARALLEL	Seminar (6)
9/6	SAT	ALLEN	ALLEN								

INFORMATION ON LECTURERS

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KANDY SHIVANANDAN
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Washington D.C. 20375-5000
U.S.A.

DONAT WENTZEL
Astronomy Program
University of Maryland
College Park, Maryland 20742
U.S.A.

SEMINAR SCHEDULE

08.30 - 10.30 p.m.

20-minute talk by participants

=====
Monday (June 4, 1990)

Manit
Mustofa
Nazar
Erna
Arvind

~~Tuesday~~ ^{Thursday} (June 7, 1990)

Zalia
Yunus
Alexander
Dhani
Priyamvada
Wang Yi

Monday (June 11, 1990)

Wahab
Rosli
Nina
Josephine
Nandita
Sohn

ALAM/zmz
4/6/'90

OBSERVING SESSIONS WITH THE TWO 8" TELESCOPES
(Dieter Brueckner leaves ISYA on Thursday 7/6/)

Solar Observations

These can be done anytime of the day. Please communicate with Dieter if you have any particular activities in mind.

Night Observations

These can be done any night. The scheduled sessions are as follows:-

Monday (4/6/1990) 10.30-12.30 p.m.

Zalia, Yunus, Alexander, Dhani, Priyam, Wang Yi, Wahab, Rosli and Nina

Tuesday (5/6/1990) 9.00-12.30 p.m.

Manit, Mustafa, Nazar, Nina, Josephine, Nandita, Sohn, Erna, Arvind, Ramli and Philip

You may also observe on both nights.

ALAM/zmz

PUBLIC LECTURES

in conjunction with

XVIIth International School for Young Astronomers

'Hubble Space Telescope - The Latest Results'

Piero Benvenuti

European Space Agency, FRG.

8 p.m. 29th May

Auditorium Islamic Centre, Kuala Lumpur

'Teaching of Astronomy in Schools'

Josip Kleczek

Czechoslovakia Academy of Science, Czechoslovakia.

8 p.m. 30th May

Curriculum Development Centre, Kuala Lumpur

'The Nautical Almanac and the Lunar Visibility Criterion'

George Kaplan

US Naval Observatory, USA

8 p.m. 2nd June

Islamic Centre, Kuala Lumpur

'Stars and Man'

David Allen

Anglo-Australian Observatory, Australia

8 p.m. 6th June

Bangunan Yayasan Negeri, Seremban

'The Restless Sun'

Donat Wentzel

University of Maryland, USA

8 p.m. 12th June

Institute for Advanced Studies, University of Malaya, Kuala Lumpur

ICTP Office of External Activities

FORM C

ICTP code:

EVALUATION BY LECTURERS/PARTICIPANTS
(please distribute to all concerned)

Title of activity:.....

Lecturer..... or Participant.....

Please comment on the following items:

1. Goals attained:.....
.....
2. Materials and equipment used during the activity:.....
.....
3. General organization:.....
.....
4. Role of co-ordinator(s):.....
.....
5. Participants:
 - (a) background:.....
.....
 - (b) involvement:.....
.....
 - (c) creativity:.....
.....
6. General comments:.....
.....
.....
.....

SUMMARY OF EVALUATION BY LECTUERS/PARTICIPANTS

(Use quantitative measures if possible)

evaluation by lecturers:

comments/suggestions of lecturers:

evaluation by participants:

comments/suggestions of participants:

EVALUATION BY LECTURERS/PARTICIPANTS

Each participant is asked to grade the various aspects of this meeting as detailed below. The lowest grade is (1) and the highest grade is (10). You should kindly write your grading in the righthand column.

			your grading
1.	The activity material was: unsatisfactory (1)	very satisfactory (10)
2.	The activity facilities were: unsatisfactory (1)	very satisfactory (10)
3.	The organization of the activity was: deficient (1)	excellent (10)
4.	The activity content was: (a) too difficult (1) (b) not useful (1)	too low-level (10) very useful (10)
5.	The activity leaders: (a) were poorly organized (1) (b) made poor presentation (1) (c) lectured at a very elementary level (1)	were well organized (10) made excellent presentation (10) lectured at a too advanced level (10)
6.	The activity co-ordinator was: (a) of little help (1) (b) unable to cope with problems (1)	of good help (10) able to cope with problems (10)
7.	The time allocated for this activity was: inadequate (1)	more than adequate (10)
8.	I feel overall that the activity was: (a) a waste of time (1) (b) should not be organized again (1)	very useful (10) should be organized again (10)
9.	Other comments about the activity:		
10.	<i>The amount of time available for interaction between participants and lecturers was</i>		
	<i>inadequate (1)</i>	<i>more than adequate (10)</i>



This is to certify that

.....

has actively participated in the
XVII International School for Young Astronomers

from

28th May to 15th June 1990

at

Universiti Kebangsaan Malaysia
and
Maritime Academy of Malaysia

Faculty

D. Allen
P. Benvenuti
D. Brueckner
G. Kaplan
J. Kleczek
T. Kogure

Y. Kozai
S. Okamura
M. Othman
J. Parkinson
S. Sato
K. Shivanandan
D. Wentzel

.....

Assoc. Prof. Mazlan Othman
Director
XVII ISYA

.....

Prof. Josip Kleczek
Secretary
XVII ISYA

XVIITH INTERNATIONAL SCHOOL FOR YOUNG ASTRONOMERS

SOCIAL PROGRAMME

May 27, 1990	p.m.	Tour of Kuala Lumpur
May 31, 1990	p.m.	Trip to Central Market, Kuala Lumpur
June 2, 1990	a.m.	Trip to Islamic Centre
	p.m.	Lunch at Islamic Centre (hosted by Prime Minister's Department)
June 3, 1990	a.m.-p.m.	Trip to Tanjung Bidara Beach (Melaka)
June 6, 1990	p.m.	Trip to Seremban (public lecture) Dinner hosted by Negeri Sembilan State Government
June 9, 1990	p.m.	Trip to Recreational Forest and Mini Malaysia (Melaka)
June 10, 1990	a.m.	Lunch at Tanjung Bidara (hosted by Melaka State Government)
	p.m.	Trip to Historical Sites in Melaka
	p.m.	Cultural presentations by participants and lecturers at ALAM
June 13, 1990	p.m.	Barbeque (hosted by Maritime Academy Malaysia)