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OBITUARY

JOSEF STRANSKY

1900 - 1983

We announce with deep regret the death of Professor Josef Stransky, President of the Czechoslovak URSI Committee.

Professor Stransky had finished his studies at the Czech Technical University (ČVUT) in Prague in 1923; he then continued his studies at the Ecole Supérieure d'Electricité, Section Radio, in Paris. Afterwards he was working at the Technical Department of the Posts and Telegraphs Directorate, Prague. From 1927 he worked in the research laboratories of the Western Electric Company, Bell Telephone Laboratories, USA and in some others. In 1937 he had been awarded D.Sc. and was appointed the first Professor of Radioengineering at the Czech Technical University. During this period he took part in the construction and building of the national broadcasting network.

After the war, Professor Stransky was the Head of the Department of Radioelectronics, Electrotechnical Faculty of the Czech Technical University. In 1952 he was elected as a corresponding member of the Czechoslovak Academy of Sciences; from 1965 he was elected ordinary member of the Academy. He was the author of many monographs and textbooks on principles of radio science, telecommunications and measurements and he had prepared hundreds of specialists for science and industry.

Professor Stransky was one of the founders of the Czechoslovak URSI Committee in 1948 and, from that time, he was his President. He was the Head of the Czechoslovak delegation at the General Assembly of URSI in Ottawa, Canada in 1969.

L. Kratena
Secretary, Czechoslovak
URSI Committee.

XXI GENERAL ASSEMBLY OF URSI
FLORENCE, 28 AUGUST - 5 SEPTEMBER 1984

GENERAL LECTURES

During the General Assembly, three General Lectures will be arranged as follows:

Wed 29 Aug. 9 AM
(or Thur 30 Aug.)

'Very Long Baseline Interferometry'
Dr. R.T. Schilizzi, Dwingeloo Observatory, Netherlands.

Fri 31 Aug. 9 AM
(or Mon 3 Sept.)

'Twenty Years of Satellite Communications'
Dr. J.V. Evans, COMSAT Laboratories, USA.

Wed 5 Sept. 9 AM

'Solitons in Biology'
Prof. Alwyn Scott, Los Alamos Laboratories, USA;

COMMISSIONS G AND H:

CALL FOR PAPERS

This Call for Papers, for several sessions or joint sessions organised by Commissions G and H, is intended to complement the general information contained in *URSI Information Bulletin* No 227 and in the *Second Announcement of the XXI General Assembly*.

The rules set up by URSI indicate that time slots of 30' (including discussion) should be used. As a consequence, a large fraction of the oral presentations will correspond to invited papers; in turn use of poster sessions is envisaged by several Convenors.

Abstracts of contributed papers should be submitted by 31 March to one of the convenors of the sessions, with a copy to P. Bauer and M. Petit, CNET/RPE, 38-40 rue du Général Leclerc, F-92131 Issy-les-Moulineaux, France.

Session G1 - Modelling of the Ionosphere: Application to Radio Systems

Convenors: C. Rush,
Institute for Telecommunications Sciences,
Department of Commerce,
Boulder, Colorado 80303, USA.

K. Rawer,
Herrenstrasse 43,
D-7801 March - Hugstetten,
F.R. of Germany.

A. Danilov,
Institute of Applied Geophysics,
Hydrometeorological Service of USSR,
6 Pavlik Morozov Street,
Moscow, USSR.

DATES: Monday 3 September (AM)
Tuesday 4 September (AM)

TOPICS: - Modelling of the ionosphere, the International Reference Ionosphere, electron density profiles, mapping.
- Ionospheric prediction, CCIR methods, modelling of auroral absorption, structure of the polar ionosphere, HF skywave signal strength.

The possibility of having posters is considered together with an oral review of the posters.

Session H1 - ULF and VLF Waves

Convenors: J.W. Hughes,
Department of Astronomy,
Boston University,
725 Commonwealth Avenue,
Boston, MA 02215, USA.

A. Roux,
CNET/CRPE,
38-40 rue du Général Leclerc,
F-92131 Issy-les-Moulineaux, France.

DATES: Friday 31 August (PM)
Monday 3 September (AM)
Tuesday 4 September (AM)

TOPICS: Magnetospheric plasma waves in the VLF-ELF range, as well as pulsations of the geomagnetic field (pc 1-5).

Half of the time will be allocated to invited talks and the remaining to posters. Contributions to the poster session are invited.

Joint Session JS8 - Plasma Instabilities in the Magnetospheres

Convenors: H. Oya,
Institute for Geophysics,
Tohoku University,
Sendai, Japan 980.

F.C. Michel,
Rice University,
Box 1892,
Houston, Texas 77251, USA.

DATES: Wednesday 29 August (AM and PM)
Thursday 30 August (PM)

TOPICS: - Macroscopic instabilities in the magnetospheres; collapse of Earth's magnetic tail, Kelvin-Helmholtz instabilities at the Earth's magnetopause, Kelvin-Helmholtz instability: flux ropes, impulsive injection of Jovian plasma, disk accretion instability in Gamma ray bursts.

- Generation and propagation of plasma waves in the magnetospheres; observations of plasma waves in planetary magnetospheres, gyroresonant interaction in planetary magnetospheres, observation of electrostatic plasma waves in the magnetospheres, origin of the continuum radiation in the magnetospheres.

- Radiation of the coherent bursts relating to the energy injection from the magnetosphere; Saturnian kilometric radiations, observation of the electromagnetic radiations from the planets, X-ray bursts observed from the scientific satellites, cyclotron maser activities in X-ray pulsars, origin of coherent radiations from planets and pulsars.

Abstracts should be submitted to the two convenors. Use of posters is considered since invited talks will cover a large part of the available time.

Joint Session JS9 - Ionospheric Plasma Phenomena

- a) Plasma instabilities in the equatorial ionosphere;
- b) Ionospheric instabilities at non-equatorial latitudes;
- c) Basic phenomena of ionosphere-magnetosphere coupling at high latitudes.

Convenors: M. Baron,
EISCAT Scientific Association,
Box 705,
S-98127 Kiruna, Sweden.

D.T. Farley,
School of Electrical Engineering,
Cornell University,
Phillips Hall,
Ithaca, N.Y. 14853, USA.

DATES: Monday 3 September (PM)
Tuesday 4 September (PM)
Wednesday 5 September (AM and PM)

TOPICS: 1) Plasma instabilities in the ionosphere (1/2 day)
2) Equatorial irregularities (1/2 day)
3) Basic phenomena of the ionosphere - magnetosphere coupling in the high latitude region (2 1/2 days).

OBJECTIVES: To review and examine our understanding of ionospheric plasma phenomena. Emphasis should be on the scientific results, not on the technique. Papers emphasizing techniques should be submitted to JS10. All papers will be 30 minutes in length (20 minutes for

presentation, plus 10 minutes for discussion). It is anticipated that each half day session will include two invited "keynote" or "review" papers. Invited speakers are being approached.

Authors interested in presenting contributed papers should submit abstracts in the standard form to both convenors. Papers may be in oral or poster form. The author's preference should be indicated on the abstract.

Joint Session JS10 - Active and Passive Radio Techniques as Diagnostic Tools in the Magnetosphere and Ionosphere - Latest Developments

Convenor: R. Leitinger,
Institut für Meteorologie und Geophysik,
Universität Graz,
Halbärthgasse 1,
A-8010 Graz, Austria.

DATE: Thursday 30 August (AM)

TOPICS: Incoherent scatter for magnetospheric research, research with combined ground-based sounding instruments, HF and VHF coherent radars (high latitude ionosphere), digital ionospheric sounders, auroral kilometric radiation, multi-instrument campaigns for studying small-scale irregularities, future developments in HF, VHF, UHF radars.

Use of posters is considered.

Joint Session JS11 - Computer Study and Modelling of Plasma and Radio Waves

Convenors: M. Abdalla,
UCLA,
Institute of Geophysics and UCLA Planetary
Physics,
Los Angeles, CA 90024, USA.

H. Matsumoto,
Radio Atmospheric Science Center,
Kyoto University,
Gokanoshō, Uji,
Kyoto 611, Japan.

T. Sato,
Institute for Fusion Theory,
Hiroshima University,
Hiroshima 730, Japan.

DATES: Thursday 30 August (AM)
Friday 31 August (AM)

TOPICS: Computer-aided studies of plasma and radio wave phenomena; computer data analysis, computer study of theories, computer modellings and simulations, related computer techniques.

Oral presentations will concern only invited papers. Contributed papers (posters) are invited. A preview of the posters will be given by previewers.

Abstracts should be sent to H. Matsumoto.

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Other joint sessions (JS1 Time-domain waveform measurements; JS12 Problems affecting radioastronomical measurements at low frequencies) as well as Open Symposia (OS2 Active Experiments in Space Plasmas, OS3 Radio Techniques in Planetary Exploration, OS4 Data, Signal and Image Processing) are of direct interest to Commissions G and H. They are not included in this announcement since they have been largely publicized already (e.g. in the *URSI Information Bulletin*).

SCIENTIFIC PROGRAMME

CORRECTIONS

The following corrections should be made to the 'Scientific Programme of the XXI General Assembly of URSI' as published in *URSI Information Bulletin* No 227:

page 1, under Commission C - Signals and Systems,
C8 'Stochastic processes':

substitute "Stuart Schwarz" for "B. Picinbono".

page 3, under Commission F - Remote Sensing and Wave Propaga-
tion, etc., F5:

substitute "Multipath effects on wide band transmission
systems" for "Clear air effects on wide-
band transmission systems".

page 3, under Commission J - Radio Astronomy:

delete "J3 Problems affecting radioastronomical
measurements at low frequencies - T.Hagfors,
J.R. Fisher".

page 4, under Joint Scientific Sessions of Commissions,
JS12:

substitute "Problems affecting radioastronomical
measurements at low frequencies - T.Hagfors,
J.R. Fisher" for "Ionospheric fluctuations
affecting radio astronomy".

8TH INTERNATIONAL CONFERENCE ON INFRARED AND MILLIMETER WAVES

This Conference, which was co-sponsored by URSI, was held from 12 to 17 December 1983 at Miami Beach, Florida, USA.

Five principal topics were covered in three parallel sessions:

- (1) More than 100 papers were presented on millimeter wave topics including sources, receivers, detectors, mixers, integrated circuits, systems, guided propagation, various devices and atmospheric physics. There were 10 invited keynote talks on millimeter wave topics.
- (2) Nearly 40 millimeter wave gyrotron papers were presented including six invited keynote talks.
- (3) Although there was substantial international participation among the 19 papers on the free electron laser, attendance and participation was diminished by the conflict with "Lasers 83" which was belatedly scheduled during the same week in San Francisco.
- (4) The three full sessions on plasma diagnostics enhanced both the millimeter and submillimeter programmes by covering one of the most important current applications of these technologies.
- (5) More than 100 papers were presented on submillimeter wave topics including spectroscopy, semiconductor phenomena, dielectric measurements, lasers, detectors, devices, atmospheric, astronomy, and pulsed sources and nonlinear optics.

The next meeting, the ninth in this series, will be held near Osaka, Japan, from 22 to 26 October 1984. Information is available from K.J. Button, M.I.T.

The Proceedings are published in successive issues of the *Int'l J. IR and MM Waves* (Plenum Publishing).

K.J. Button
Programme Chairman
M.I.T. Cambridge, MA, USA.

MICROWAVE SIGNATURES IN REMOTE SENSING

The Commission F International Symposium on Microwave Signatures in Remote Sensing was held in Toulouse, France, from 16 to 20 January 1984.

About 100 participants from 20 different countries all over the world shared very actively the eight sessions with 40 oral presentations and the two poster sessions with 25 contributions.

The new achievements reported were concentrating on measurement methods and modelling of signatures of the natural environment regarding backscattering and emission of microwaves. The results of this kind of investigations form the basis for the design of air- and space-borne remote sensing systems and for the geophysical and ecological interpretation of the observational data.

Particular progress has been achieved in the quality of systematic experimental and observational investigations and in the sophistication of theoretical models, specifically in the topic areas of ocean - sea ice - snow and soil - vegetation.

An increasing activity in signature research by an increasing number of research groups from many parts of the world since a few years could be observed.

Three international journals of the subject area have offered to publish special issues dedicated to this Symposium.

The Centre d'Etudes Spatiales (CNES) was supporting the Symposium and showed its excellent capability in organising this meeting.

On behalf of the Scientific Committee:

R.K. Moore
University of Kansas
USA.

E. Schanda
University of Bern
Switzerland.

SYMPOSIUM ON WAVES IN MAGNETOSPHERIC PLASMAS

This Commission H Symposium was held as a Chapman Conference at the Keauhou Beach Hotel on the Kona Coast, Hawaii, from 7 to 11 February 1983. It was convened by R.L. Dowden (Otago University, New Zealand) and B.J. Fraser (Newcastle University, N.S.W., Australia) and organised by the American Geophysical Union.

The aim of the Symposium was to bring together investigators of magnetospheric plasma waves with frequencies from VLF whistlers and emissions down through ELF and ULF to Pc5 long period pulsations. The emphasis of the Symposium was on the physics and techniques underlying the entire frequency range. Topics solicited included nonlinear electron and ion cyclotron wave growth; wave-wave interactions, such as VLF-Pc1 (0.2-5 Hz), VLF-VLF and various ULF-VLF; wave-particle interactions; free energy sources for waves; harmonic generation; the rôle of heavy ions in wave generation and propagation; artificial wave generation such as Siple transmissions, electrojet modulation and power line radiation; and wave and spectrum analysis techniques.

The programme was arranged so that there would be no parallel sessions and with the conviction that all papers presented should interest all attendees. One hundred and four papers were presented in the morning and evening sessions by the seventy-six participants and contributions were equally divided between oral and poster presentations.

A new approach was adopted for the presentation of poster papers. Prior to each poster session two previewers shared a 45-minute oral presentation which provided about a 5-minute summary of the main points of each poster paper. The previewers were given at least two days for preparation so that they could discuss the papers with authors, obtain key figures and prepare their preview. This proved most successful and was generally considered preferable to requesting individual authors to attempt short presentations of their own work. This view was shared by the authors, many of whom came to see this preview plus poster method as presenting their message better than the conventional oral method for some papers. In contrast only 1% of papers submitted indicated poster presentation by preference.

It is impossible to consider all topics presented and this

brief report concentrates on the common properties, and interactions between ULF and VLF. A large body of papers dealt with the cyclotron instability. With the aid of realistic computer simulations, theoretical studies of the electron cyclotron mechanism which is responsible for VLF emissions established that many of the simplifying assumptions necessary in the past could be relaxed and that the instability is quite dependent on the inhomogeneity of the magnetospheric plasma. There are still a number of questions to be answered to bring the theoretical, simulation and experimental results together. The physics of the proton cyclotron instability giving rise to Pc1 pulsations has not been developed to the same extent as the electron case, probably because of the difficulties associated with undertaking accurate spectral measurements. Rather the emphasis in this area was on thermal heavy ions (He^+ , O^+) and associated cyclotron absorption and propagation effects in the magnetosphere of the Earth and the Io plasma torus of Jupiter.

There are important interactions between electron cyclotron whistler-mode, ion cyclotron and low frequency hydromagnetic waves. It is studies such as these that provide the reasons why scientists from the two ends of the spectrum should interact. The intensity and frequency of both cyclotron modes are strongly and similarly affected by magnetospheric compression and expansion. Quasi-periodic ELF/VLF emissions are probably caused by modulation of the whistler-mode generation source by Pc3-4 standing hydromagnetic waves. During substorm development, dawnside VLF chorus and duskside IPDP pulsations appear practically simultaneously. This illustrates the importance of wave-particle interaction. Other areas of interest involving wave-particle interactions included the theory of particles in Pc3-5 compressional waves, upstream waves near the bow shock, vortices in the boundary layer plasma and VLF chorus and Landau resonance.

Active wave and particle injection experiments are now beginning to provide extremely important and detailed results on magnetospheric properties. For example, early shuttle electron gun results report the generation of polarized and unpolarized electromagnetic noise while the electron beam experiment on GEOS 2 has been used to detect the electric fields of waves with frequencies up to 50 Hz. Other papers were concerned with power line radiation in the magnetosphere, VLF wave injection experiments and associated particle precipitation, and waves associated with modulated HF heating of the polar electrojet ionosphere at frequencies from several kHz

down to the Pc5 range. Another group of papers addressed the topic of waves generated on auroral field lines. Electrostatic waves were invoked to explain processes associated with pulsating aurora and narrow-band emissions in a diffuse aurora. Consideration of parallel electric fields and field aligned currents and the formation of ion conics was discussed using simulation techniques and analytical theory. It was suggested the upflowing hydrogen and oxygen ions may be accelerated by ion cyclotron wave heating.

The session ended with a critique of the meeting. All seemed quite happy with the site and the size of the conference and felt the balance between posters and oral presentations (50/50) was just about right. The decision to have morning and evening sessions leaving the afternoons free for discussion was well received. There were divided opinion on the timing of the next conference, if any, and the possible sites.

In the meantime there will be a wave session at the COSPAR meeting at Graz in June 1984, and three half-day sessions on ULF/VLF waves in magnetospheric plasmas at the URSI General Assembly in Florence in September 1984. Twenty-four of the one hundred and four papers from the Hawaii meeting have been published in the August 1983 issue of *Geophysical Research Letters* under the guest editorship of W.J. Hughes.

R.L. Dowden

B.J. Fraser

URSI SYMPOSIUM ON MILLIMETER AND SUB-MILLIMETER TECHNOLOGY

First Announcement

The International Union of Radio Science and its Spanish Member Committee are sponsoring a Symposium on Millimeter and Sub-millimeter Astronomy, to be held in Granada, Spain, from 11 to 14 September 1984.

Most of the meeting is devoted to mm and sub-mm technology, with about less than half of the time reserved for astronomical results. Because of time limitations, the Scientific Organizing Committee has concentrated on certain aspects of the science, to the exclusion of some technologies (e.g. observations at wavelengths shorter than 100 μ m, observations from space).

Participation is by invitation only, and the Scientific Organizing Committee may have to limit the attendance to about 150 persons.

A preliminary programme is reproduced below. Most of the speakers have confirmed that they will give these talks. A few names may change on the final programme. Several proposals for contributed papers have been received, and will be scheduled after the final response is in.

A Second Announcement with further invitations will be sent after response to this announcement, preferably before 1 March 1984.

The Scientific Organizing Committee includes V. Radhakrishnan and R. Wielebinski, Chairman and Vice-Chairman of URSI Commission J respectively, S. Drapatz, J. Gomez-Gonzalez, N. Kaifu, N. Kardashev, E. Kollberg, T.G. Phillips, W.J. Welch, R. Wilson, G. Wrixon. The Committee is co-chaired by D. Downes and E.J. Blum (IRAM, Voie 10, Domaine Universitaire 38406 St.Martin d'Hères, France, telex 980753).

The Local Organizing Committee is chaired by J. Gomez-Gonzalez (IRAM, Avenida Divina Pastora 7-9, Bloque No 6,2B, Granada, Spain, telex 78584).

TENTATIVE PROGRAMME

Monday, 10 September: Visits are possible to the 14-m millimeter telescope of the Instituto Geografico Nacional at Yebes (via Madrid), or to Pico Veleta.

Tuesday, 11 September

AM 09:00-13:00 - TELESCOPES

New perspectives in telescope technology and surface measurement (Introductory review)	R.Wilson
The 30-m telescope on Pico Veleta	J.W.M. Baars
The Nobeyama telescopes	N. Kaifu
The UK/Netherlands 15-m telescope	R.E. Hills
The Cal Tech high dish	T.G.Phillips
The IRAM 15-m dishes	M.J.de Jonge
Holographic methods and results (review)	D. Morris

(There may be about 30 min. for short contributions on surface measurements/adjustments, but no time is expected to be available for other contributions).

PM 15:00-18:00 - TELESCOPE/INTERFEROMETRY TECHNOLOGY

MM-interferometers (review)	W.J. Welch
The Cal Tech interferometer	C.R. Masson
The Nobeyama interferometer	M. Ishiguru
The IRAM interferometer	L.N.Weliachew

Invited contribution: New concepts for the next-generation telescope and possible mm/sub-mm astronomy applications (including focal-plane arrays)

	J.E. Nelson
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MM-VLBI techniques and observations

	D. Backer
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(Session may be extended by one hour to accommodate other contributions).

Wednesday, 12 September

AM 09:00-13:00 - RECEIVERS

Superconducting and Schottky mixers (review)	E.Kollberg
Cal Tech SIS mixers	D. Woody
IRAM SIS receivers	R.Blundell

Superconducting detector developments at Nobeyama	J. Inatani
Bell Labs SIS mixer	R. Wilson
Berkeley SIS developments	-
MPIFR high frequency mixers	H.-P. Roser
Cork receiver at 300-500 GHz for ESTEC	G. Wrixon
UMass high frequency mixers	N.R.Erickson
Sub-mm heterodyne mixers	H.R.Fetterman
Solid-state sources for low-noise heterodyne receivers	J.W. Archer

PM 15:00-18:00 - SPECTROMETERS/OTHER TECHNOLOGY

Far-IR spectrometers (Fabry-Perot, grating and heterodyne) (invited review)	J.W.V.Storey
MM/Sub-mm spectrometers (new AOS and digital correlators)	Y. Chikada

(50% of the session reserved for new developments in technology).

Thursday, 13 September

AM 09:00-13:00 - SUB-MM/FIR ASTRONOMY

Sub-mm/FIR spectroscopy (of the interstellar medium)	T.G. Phillips
Airborne FIR spectroscopy (with emphasis on the galactic center)	R. Genzel
Atomic and molecular spectroscopy (laboratory results, new expectations for astrophysics, motivation to go to higher frequencies)	A. Omont
Continuum astronomy with monolithic bolometer arrays	D.A. Harper
Bolometer systems developed at MPIFR	E. Kreysa

(Contributions expected from several other groups).

PM 15:00-18:00 - MM-ASTRONOMY

Millimeter observations of galaxies (review)	N.Z.Scoville
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MM-interferometer of compact galactic sources
(protostellar and evolved stars)

R.L.Plambeck

Astronomical results from Nobeyama

M. Morimoto

(Contributions expected from many groups).

Friday, 14 September

AM 09:00-13:00 - TO BE ARRANGED

(reserved for new developments, last minute and other
contributions in astronomy).

PM - FREE

Saturday, 15 September

AM: Visit to the 30-m telescope on Pico Veleta.

ANNOUNCEMENTS OF MEETINGS AND SYMPOSIA

6th International Symposium on Information

Theory (ISIT-6)

This Symposium will be held from 18 to 22 September 1984 in Tashkent, Uzbek SSR. It is sponsored by the USSR Academy of Sciences and the Uzbek Academy of Sciences, and organised by various Institutes of these Academies.

The Symposium will be devoted to mathematical problems of Information Theory and its modern applications. The Symposium programme will include papers on the following topics:

1. Mathematical problems of Information Theory
2. Source coding; Information-theoretical aspects of image and speech coding
3. Error-correcting codes
4. Statistical theory of signals and noise
5. Multi-component stochastic systems
6. Source and channel networks
7. Information-theoretical aspects of system simulation and optimization.

Those wishing to participate in the Symposium should give notice to the ISIT-6 Organizing Committee. Papers will be presented in Russian or English. A number of 40-minute invited lectures is planned for the Symposium.

For further information, please contact:

ISIT-6 Organizing Committee,
Institute for Problems of the Information
Transmission,
19 Ermolovoy St., Moscow GSP-4, 101447 USSR,
Phone: 209-49-81.

1985 International Symposium on Antennas and

Propagation

Call for Papers

The 1985 International Symposium on Antennas and Propagation (ISAP '85, Japan) will be held at Kyoto International Conference Hall in Kyoto, Japan from 20 August to 22 August

1985. This Symposium, the third ISAP in Japan, is sponsored by the Institute of Electronics and Communication Engineers of Japan, and is supported by the Antennas and Propagation Society of the Institute of Electrical and Electronics Engineers.

Objective: The ISAP '85, Japan is intended to provide an international forum for the exchange of information on the progress of research and development in antennas, propagation, electromagnetic wave theory and related fields as shown in the Scope, initiated by the theme: A step to new radio frontiers. This is the 3rd symposium, following the two in Sendai (1971 and 1978).

Scope: The Symposium will treat a wide range of subjects and emphasize the theme "New Radio Wave Frontiers". The Steering Committee, which is chaired by Prof. F. Ikegami from the Kyoto University, has designated special topics for inclusion in the programme. Papers dealing with novel utilization techniques of radio waves for communications, measurements and sensing, energy transmission, and so forth, will contribute to the theme of the Symposium, in addition to papers on theory, design, practice, and applications of antennas and propagation.

Submission of papers: Original papers, in English, are solicited that have not been presented previously. Each author is requested to submit one English original and two duplicated copies of a 4-page summary, including all texts, references, figures and photographs. The summary should be typed single spaced on white paper approximately 21.5 cm x 28.5 cm in size. The deadline for summaries is 1 March 1985.

For further information regarding the submission of papers, please contact:

Prof. Naohisa Goto,
Chairman of the Programme Committee,
Department of Physical Electronics,
Tokyo Institute of Technology,
Ookayama, Meguroku,
Tokyo 152, Japan.

For general information regarding the Symposium, please contact:

Prof. Kazuaki Takao,
Secretary of ISAP '85,
Department of Electrical Engineering,
Kyoto 606, Japan.