

Regional Scientific Conference on Tropical Meteorology

(熱帯気象学に関する地域科学会議)の御案内

日本気象学会創立100周年記念事業の一環として、上記の会議が来る10月18日(月)から22日(金)まで茨城県・筑波研究学園都市において、日本気象学会主催、WMO、アメリカ気象学会および気象庁後援のもとで開催されます。発表予定論文数は111編で、海外からはアメリカ、中国、インド、オーストラリア、ブルネイ、ホンコン、イギリス、マレーシア、フィリピン、サウジアラビア、スリランカ、ベトナムからの参加が予定されています。

〈会議日程〉

10月18日(月) 会場：気象研究所(茨城県筑波郡谷田部町長峰1-1)

8:30 受付開始

9:30 開会式

10:30 セッション1：熱帯における大気大循環(昼食後気象研究所内見学)

14:00 セッション2：熱帯低気圧の理論的研究

セッション3：熱帯低気圧の観測的研究I

10月19日(火) 会場：筑波研究交流センター(茨城県新治郡桜村竹園2-20-3)

9:00 セッション4：熱帯低気圧の観測的研究II

セッション5：熱帯じょう乱I

14:00 セッション6：熱帯におけるモンスーンI

セッション7：熱帯におけるモンスーンII

10月20日(水) 会場：筑波研究交流センター(以後同じ会場を使用)

9:00 セッション8：熱帯じょう乱II

セッション9：熱帯じょう乱III

(筑波研究学園都市周辺へのエクスカージョン)

15:30 セッション10：熱帯と中・高緯度の相互作用 I

セッション11：熱帯と中・高緯度の相互作用 II

10月21日(木)

9:00 セッション12：熱帯における経年変化I

セッション13：熱帯における経年変化II

14:00 セッション14：熱帯における大気・海洋間相互作用と境界層の研究

10月22日(金)

9:00 セッション15：低緯度における予報I

セッション16：低緯度における予報II

14:00 セッション17：熱帯における雲

セッション18：熱帯における観測方法

閉会式

〈会場への交通〉

国鉄の最寄駅は常磐線荒川沖駅、または土浦駅(急行停車)。駅からバスまたはタクシー利用(ただしバスの便は少ないので御注意下さい。)会議参加に関するお問合せ、交通手段または宿泊施設等に関する詳細は下記までお願いします。

「熱帯気象学に関する地域科学会議」実行委員会事務局(実行委員長：原田 朗)

〒305 茨城県筑波郡谷田部町長峰1-1

気象研究所企画室気付

電話 0298-51-7111

Tentative Programme

Session 1: General Circulations in the Tropics

Chairman: A. Kasahara, National Center for Atmospheric Research, Boulder, Colorado, U.S.A.

1. 1 "January simulation of the tropical circulation with the MRI general circulation model"

T. Tokioka and A. Kitoh

1. 2 "Mass, angular momentum and energy exchange of thermally-forced planetary scale circulations"

D.R. Johnson

1. 3 "Stability of the Walker circulation"

T. Sasamori

1. 4 "Significance of non-elliptic regions in balanced flows of the tropical atmosphere"
A. Kasahara
1. 5 "Dynamical interaction between the troposphere and the stratosphere"
A.M. Selvam, A.S. Ramachandra Murty and Bh. V. Ramana-Murty

Session 2: Theory of Tropical Cyclones

Chairman: K. Ooyama, National Hurricane Research Laboratory, NOAA, Coral Gables, Florida, U.S.A.

2. 1 "Theorization of tropical cyclone" (INVITED REVIEW)
K. Ooyama
2. 2 "On mechanism of the genesis of tropical storms"
Y. Kurihara and R.E. Tuleya
2. 3 "A further study of axially symmetric tropical cyclone with explicitly resolved convective clouds"
M. Yamasaki
2. 4 "Orographic effects of typhoons"
M. Estoque and S. Ishijima
2. 5 "A numerical simulation of the interaction between two tropical cyclones"
S.W. Chang and R.V. Madala

Session 3: Observational Study of Tropical Cyclones I

Chairman: P.G. Price, Bureau of Meteorology, Melbourne, Australia

3. 1 "A review of recent research into tropical cyclones in the Australian Bureau of Meteorology"
(INVITED REVIEW)
P.G. Price
3. 2 "Summary of new CSU research findings to tropical cyclone structure, motion, intensity change and genesis"
W.M. Gray
3. 3 "Results from recent observational studies of hurricanes"
S.L. Rosenthal
3. 4 "Some aspects of formation of typhoon Ellis as revealed by satellite imageries"
N. Shimizu
3. 5 "Equatorial westerlies and tropical cyclogenesis over the equatorial Pacific"
T. Izawa
3. 6 "Tropical cyclones formed in the western Pacific during summer MONEX/FGGE"
T. Izawa

Session 4: Observational Study of Tropical Cyclones II

Chairman: N. Dong, Central Meteorological Bureau, Beijing, China

4. 1 "On the relative motion of binary tropical cyclones"
K. Dong and C.J. Neumann
4. 2 "Trochoidal motion of the typhoon eye"
T. Muramatsu
4. 3 "A study of a sharp trough-like depression within a typhoon"
S. Matsumoto and H. Okamura
4. 4 "Structures of rainbands in typhoons observed by Doppler radars in mid-latitude"
M. Ishihara and Z. Yanagisawa
4. 5 "An observational study on the surface wind structure in the typhoon core region with island

station data”

S. Ishijima

4. 6 “The diagnosis of knotty typhoons”

Wang Zhilie

Session 5: Tropical Disturbances I

Chairman: M. Mak, University of Illinois, Urbana, Illinois, U.S.A.

5. 1 “On moist quasi-geostrophic baroclinic instability”

M. Mak

5. 2 “Baroclinic (and barotropic) instability with cumulus heating”

A. Arakawa and S. Moorthi

5. 3 “The development of monsoon depressions”

R.S. Lindzen

5. 4 “On some dynamical and energy aspects of a monsoon depression during its life cycle”

S. Rajamani and J.R. Kulkarni

5. 5 “African wave disturbances in a general circulation model”

M. Estoque

Session 6: Monsoon in the Tropics I

Chairman: B.K. Mukherjee, Indian Institute of Tropical Meteorology, Pune, India

6. 1 “Heat budget analysis during the summer monsoon”

T. Nitta

6. 2 “Large-scale heat and moisture budget over various regions of the monsoon area during the summer MONEX in 1979”

T. Nitta, K. Kuma and D.R. Sikka

6. 3 “The large-scale circulation and heat sources over the Tibetan Plateau and its surroundings during the summer MONEX”

H.-B. Lou and M. Yanai

6. 4 “The active/break cycle of the Indian summer monsoon over the Indian Ocean”

D.L. Cadet

6. 5 “The interaction between the major active-break cycle of the summer monsoon and the circulation in Eurasia and western Pacific”

M. Tanaka

6. 6 “A mid-August minimum in the summer monsoon rainfall of India”

R. Ananthakrishnan, J.M. Pathan and S.S. Aralikatti

6. 7 “Vertical motions in stratosphere and the lower mesosphere and associated monsoon activity”

B.K. Mukherjee, K.S. Raja Rao, R.S. Reddy, S.B. Pavgi and Bh. V. Ramana Murty

Session 7: Monsoon in the Tropics II

Chairman: T. Murakami, University of Hawaii, Honolulu, Hawaii, U.S.A.

7. 1 “Heat, moisture and vorticity budget before and after the onset of the 1978-79 southern hemisphere summer monsoon”

T. Murakami and T. Iwashima

7. 2 “Near-equatorial trough and associated disturbance of Southeast Asia during the winter monsoon”

J.T. Lim, S.H. Ooi and N.P. Tung

7. 3 “10-20 day oscillation during winter MONEX”

B.K. Cheang, K.-S. Yap and K.-G. Lum

7. 4 "Fluctuations of the monsoonal flow and the deep convective activities over the western Pacific and Southeast Asia"
M. Murakami
7. 5 "Moisture analysis over the western Pacific and Southeast Asia during northern hemispheric summer"
T. Inoue
7. 6 "On the medium-range oscillations of tropical circulation over the north-western Pacific and the South China Sea during summer"
X.-L. Chen, Z.-H. Jin, X.-L. Liu and G.-Q. Shi
7. 7 "Low-level cross equatorial flows and the summer monsoon over the Indo-China peninsula and the South China Sea"
Liang Biqi, Liang Mengxuan and Xu Xiaoying
7. 8 "The south Pacific convergence zone in relation to the summer precipitation in the Chanjiang river-Huaihe river region of China"
Zhu Fukang, Lu Longhua, Chen Xianji, Zhang Qingfen, Yu Heshu and Chao Shuyi

Session 8: Tropical Disturbances II

Chairman: M. Yanai, University of California, Los Angeles, California, U.S.A.

8. 1 "Equatorially trapped waves at 200 mb and their association with equatorward wave energy fluxes"
M. Yanai and M.M. Lu
8. 2 "Equatorial waves observed during the FGGE period"
T. Maruyama
8. 3 "The sources of kinetic energy in the large-scale tropical disturbances"
E.C. Kung
8. 4 "Cross equatorial propagation of planetary-scale Rossby-gravity waves"
K. Mimura and I. Hirota
8. 5 "Planetary scale waves in the lower atmosphere"
A.G. Pillai, A.M. Selvam, A.S.R. Murty and Bh. V. Ramana Murty

Session 9: Tropical Disturbances III

Chairman: Y. Ogura, University of Illinois, Urbana, Illinois, U.S.A.

9. 1 "A numerical study of cloud clusters as a scale interaction problem"
S.T. Soong and Y. Ogura
9. 2 "Observed interactions of cloud clusters and the large-scale flow during GATE"
S.K. Esbensen and E.I. Tollerud
9. 3 "On the initiation and growth of tropical mesoscale convection"
R.H. Johnson
9. 4 "Overview of mesoscale aspects of tropical disturbances in GATE"
E.J. Zipser
9. 5 "The Hawaii Mesoscale Energy and Climate Project: A comparison of 3-D [mesoscale numerical model simulations and observational data"
E.C. Nickerson and M.A. Dias
9. 6 "Case study of mesoscale convective complex over subtropical China"
G.T.-J. Chen, S.-S. Chi and W.-C. Shieh

Session 10: Interaction between the Tropics and Higher Latitudes I

Chairman: C.P. Chang, Naval Postgraduate School, Monterey, California, U.S.A.

10. 1 "Short term midlatitude-tropical interactions during winter monsoon" (INVITED REVIEW)
C.P. Chang
10. 2 "Recent progress in understanding the interaction between the tropics and the higher latitudes and proposed efforts for further research"
R.J. Eleming
10. 3 "Effects of mountains on cold surges"
H. Nakamura and T. Murakami
10. 4 "Characteristic features of deep convective activity and large-scale field over the equatorial Pacific during northern hemispheric winter"
K. Kodera and M. Murakami
10. 5 "On the heavy rainfall during northeast monsoon over northern Taiwan"
G.T.-J. Chen and K.Y. Liu

Session 11: Interaction between the Tropics and Higher Latitudes II

Chairman: C.Y. Lam, Royal Observatory, Kowloon, Hong Kong

11. 1 "The interaction between tropical circulations and the Asian monsoon over the South China Sea as revealed by GMS data"
C.Y. Lam
11. 2 "A theory of global responses to equatorial forcing"
H. Lim, C.P. Chang and K.M. Lau
11. 3 "The interaction between middle and low latitudes through the wave guide of stationary planetary waves"
R.H. Huang and K. Gambo
11. 4 "Numerical simulation of east Asia 'Mei-Yu' fronts"
L.C. Chou, R.T. Williams and C.P. Chang

Session 12: Interannual Variation in the Tropics I

Chairman: M.M. Yoshino, University of Tsukuba, Tsukuba, Japan

12. 1 "Climatic anomalies in East Asia and sea surface temperature in the tropical Pacific"
M.M. Yoshino and Simei Xie
12. 2 "Interannual variations of circulation over Tibet and northern India"
M.G. Hamilton
12. 3 "Low frequency variability of the tropical circulation as inferred from satellite radiation data"
K.M. Lau and P.H. Chan
12. 4 "Fluctuations of global surface pressure patterns during the past 100 years and their relations to Asian summer monsoon"
T. Yasunari
12. 5 "A quasi-biennial oscillation appearing in the monthly rainfall over Indonesia region"
T. Yasunari

Session 13: Interannual Variation in the Tropics II

Chairman: Y.H. Ding, Institute of Atmospheric Physics, Academia Sinica, Beijing, China

13. 1 "Observed hemispheric teleconnections of large-scale circulation affecting the variability in the frequency of tropical cyclone formation over the northwest Pacific and north Atlantic Oceans"

Y.H. Ding and E.R. Reiter

13. 2 "Spatial and temporal variation in the western North Pacific typhoons during 30-year period, 1951-1980"
T. Aoki
13. 3 "Inter-annual variability of summer-monsoon rainfall over India in relation to large scale circulation features"
D.R. Sikka, S.G. Nagar and V.R. Deshpande
13. 4 "Large-scale development of the monsoon for seasons 1979 to 1981"
U.C. Mohanty and R.P. Pearce
13. 5 "Planetary scale abnormalities in 1979, a year of monsoon failure"
S.T. Awade, M.Y. Totagi, S.M. Bawiskar and D.R. Sikka

Session 14: Air-Sea Interaction and Boundary Layer Studies in the Tropics

Chairman: R. Ananthakrishnan, Indian Institute of Tropical Meteorology, Pune, India

14. 1 "Heat fluxes over the eastern tropical Pacific Ocean"
R.K. Reed
14. 2 "Numerical study of interaction between cumulus convection and trade wind"
K. Nakamura and T. Asai
14. 3 "Tests of alternative entrainment assumptions for cloud topped mixed-layer models"
D.A. Randall and C.H. Moeng
14. 4 "The turbulent transport mechanism in the marine surface layer over the tropical ocean"
T. Fujitani
14. 5 "Boundary layer processes and some features of the summer monsoon rainfall along the west coast of India"
R. Ananthakrishnan, C.K. Rajan and P. Valsala
14. 6 "Thermodynamical features in surface boundary layer associated with thunderstorm activity at Pune in Deccan Plateau"
B.K. Mukherjee, S.K. Saha and Bh. V. Ramana Murty
14. 7 "The carbon dioxide content in the surface waters in the tropical Pacific Ocean"
Y. Sugimura
14. 8 "Carbon isotopes in surface water and in the air over the tropical Pacific Ocean"
H. Inoue and Y. Sugimura
14. 9 "Variations in the radio refractive index of the lower atmosphere during the summer monsoon"
S.S. Parasnis, A.M. Selvam, A.S.R. Murty and Bh. V. Ramana Murty
14. 10 "Fluxes of momentum, dry- and moist-static energies in the tropical boundary layer"
S.S. Parasnis, C.P. Kulkarni, C.S. Bhosale, A.L. Londhe, S. Srivastava, A.M. Selvam and Bh. V. Ramana Murty
14. 11 "Spectra of temperature and humidity fluctuations in the tropical planetary boundary layer"
A.M. Selvam, P. Sikka, S.S. Goyal, R. Vijayakumar, A.S.R. Murty and Bh. V. Ramana Murty
14. 12 "Geostrophic balance in the lower atmosphere over the Arabian Sea and Bay of Bengal regions during the summer monsoon"
S.S. Parasnis, A.L. Londhe, A.M. Selvam, A.S. Ramachandra Murty and Bh.V. Ramana Murty

Session 15: Weather Prediction in Lower Latitudes I

Chairman: T.N. Krishnamurti, Florida State University, Tallahassee, Florida, U.S.A.

15. 1 "Numerical weather prediction experiments over the tropics using a global spectral model"
T.N. Krishnamurti
15. 2 "Cumulus parameterization in global numerical weather prediction"
R.J. Pasch
15. 3 "Numerical forecast of the onset of summer monsoon"
M. Kanamitsu
15. 4 "The effects of initialization on numerical prediction of tropical disturbances"
T. Kitade
15. 5 "On the influence of mid-latitude forcing on the forecast in the tropics"
A. Sumi
15. 6 "Numerical prediction experiment of subtropical upper level cyclone"
M. Sugi and M. Kanamitsu

Session 16: Weather Prediction in Lower Latitudes II

Chairman: B. M. Soriano Jr., NIACAS, PAGASA, Quezon City, Philippines

16. 1 "A probable correlation between 500-mb vorticity advection and large-scale precipitation"
B.M. Soriano Jr.
16. 2 "The increasing socio-economic impact of tropical cyclones in the Bay of Bengal"
R.L. Southern
16. 3 "A regional five level primitive equation model"
S.S. Singh
16. 4 "On the performance of typhoon track forecast model with a movable multi-nested grid scheme"
Y. Ookochi
16. 5 "Recent results from the navy nested tropical cyclone model"
M. Fiorino and E.J. Harrison Jr.
16. 6 "Use of the empirical orthogonal expansion coefficients in a statistic model forecasting typhoon displacement"
T.V. Thu
16. 7 "Application of quasi-lagrangian nested grid model to tropical cyclone development with real data"
M.B. Mathur

Session 17: Tropical Clouds

Chairman: T. Takahashi, University of Hawaii, Hilo, Hawaii, U.S.A.

17. 1 "Precipitation mechanisms in tropical clouds over the islands of Hawaii"
T. Takahashi
17. 2 "Electrification of oceanic tropical clouds"
T. Takahashi
17. 3 "Entrainment and detrainment in a simple cumulus cloud model"
D.A. Randall and G.J. Huffman
17. 4 "Evolution of raindrops in an axisymmetric cloud model"
J. Shiino
17. 5 "Generation of mean flow in turbulent convection and relevance to the tropics"
R. Krishnamurti and L.N. Howard
17. 6 "Mean properties of radar echo population and their relationship to synoptic-scale motions over the tropical western Pacific"

M. Ishihara

17. 7 "Observations of cloud drop spectra in summer monsoon warm clouds and associated cloud dynamical characteristics"
S.K. Paul, A.G. Pillai, S.K. Sharama, A.M. Selvam, A.S.R. Murty and Bh. V. Ramana Murty
17. 8 "Dynamics of the summer monsoon cloud"
A.M. Selvam, A.S. Ramachandra Murty and Bh. V. Ramana Murty
17. 9 "Electrical and dynamical characteristics of summer monsoon clouds"
A.M. Selvam, G.K. Manohar, S.S. Kandalgaonkar, A.S.R. Murty and Bh. V. Ramana Murty

Session 18: Methods of Observation in the Tropics

- Chairman: A. Gruber, National Earth Satellite Service, NOAA, Washington D.C., U.S.A.
18. 1 "Microwave sensing of moisture fields in tropical storms over the Atlantic Ocean"
A. Gruber and W.C.C. Shen
18. 2 "Structure of typhoon Clara by satellite stereography"
T. Takashima, Y. Takayama, K. Matsuura, K. Naito, K. Watanabe, S. Kadowaki, S. Nakamura, M. Narui and N. Maeda
18. 3 "Structure of typhoons in the East China Sea as seen from SEASAT-1 satellite"
T. Izawa
18. 4 "An assesment of meteorological data with respect to the prediction of Shamals and similar events over the Arabian deserts"
W.K. Rudloff
18. 5 "Results of a meteorological field measurements program conducted at the Central Nuclear de Angra power plant site in southeast Brazil"
T.F. Iaccarino, R.W. Jubach, M.A. Silva Lobo, P.P. Lima Silva and B.M. Eschebach
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