Updated Program

INTERNATIONAL CONFERENCE ON MATHEMATICAL ANALYSIS AND ITS APPLICATIONS
(ICMAA2000)
NATIONAL SUN YAT-SEN UNIVERSITY
KAOHSIUNG, TAIWAN, R. O. C.
JANUARY 17-21, 2000.

`New changes are in typewriter fonts`

Monday, Jan. 17, 2000
University Library 11th Floor, NSYSU

08:00 – 09:30 Registration

09:30 – 9:50 Opening

- Vice President C. H. Chou of National Sun Yat-sen University
- President T. H. Kuo of Mathematical Society of Republic of China

10:00 – 11:00 Keynote speech by Louis de Branges (Purdue)
The measure problem. (Chairman: Borluh Lin)

11:15 – 12:15 Keynote speech by Mau-Hsiang Shih (Chung Yuan Christian U.)
Convexity, games and the stability problem. (Chairman: S. Koshi)

Lunch

13:30 – 14:50 Parallel Sessions of 40-minute Lectures

1. **Banach Space Theory, I** (**Room A**, Chairman: Mark C. Ho)
   (a) C. C. Cowen (Purdue)
   Schroeder's equation in several variables.
   (b) Denny Leung (Singapore)
   On the complemented subspaces of the Schreier spaces.
2. **Matrix Analysis, I** (**Room B**, Chairman: M. H. Shih)
   (a) T. Ando (Hokusei Gakuen University)
   Bloomfield-Watson type inequalities for eigenvalues.
   (b) S. Koshi (Hokkaido Inst. Tech.)
   Disintegration method in Fourier analysis.
3. **Optimization Theory, I** (**Room C**, Chairman: H. C. Lai)
   (a) B. D. Craven (Melbourne)
   Perturbations and approximate minimum in constrained optimization.
   (b) T. Tanaka (Hirosaki U.)
   Graphic computation of payoff functions for multi-criteria games.
4. **Value distribution theory, I** (**Room D**, Chairman: A. P. Singh)
   (a) C. C. Yang (Hong Kong U. of Sci. Tech.)
   On value distribution theory and its applications to complex dynamics.

(b) S. Morosawa (Kochi U.)
Appearance of Baker domains.

5. **Operator Semigroups, I** (**Room E**, Chairman: S. Y. Shaw)
   (a) F. Altomare (U. of Bari)
   Transition semigroups on weighted function spaces.
   (b) W. Arendt (U. of Ulm)
   Resolvent positive operators and non-homogeneous boundary conditions.

15:10 – 17:00 Parallel Sessions of 20-minute Talks

Room A Chairman: P. L. Papini

15:10 – 15:30 V. K. Bhardwaj (Kurukshetra U.)
On some new spaces of lacunary strongly σ–convergent sequences defined by Orlicz functions.

15:30 – 15:50 O. Blasco (U. de Valencia)
q-concavity and related properties on symmetric sequence spaces.

16:00 – 16:20 M. Budzynska (U. of Maria Curie-Sklodowska)
A semi-Opial property.

16:20 – 16:40 C. Z. Cheng (Beijing Poly. U.)
A minimax theorem involving two functions.

16:40 – 17:00 Y. Zelinski (Inst. Math., Ukraine)
Complex linearly convex analysis.

Room B Chairman: M. H. Shih

15:10 – 15:30 Pankaj Jain (U. of Delhi)
Inequality of Hardy and Carleman type.

15:30 – 15:50 M. Uchiyama (Fukuoka U. of Ed.)
Pick function which is defined implicitly and operator inequality.

16:00 – 16:20 T. Yamamoto (Hokkai-Gakuen U.)
The real part of an outer function and the parameterization of a Helson-Szego weight.

16:20 – 16:40 T. Kuczumow (U. of Maria Curie-Sklodowska)
The Denjoy-Wolff theorem.

16:40 – 17:00 S. Ohno (Nippon Inst. of Tech.)
Weighted composition operators on the sup-norm function spaces.

Room C Chairman: P. Y. Wu

15:10 – 15:30 F. Lust-Piquard (U. de Cergy-Pontoise)
On some commutative and noncommutative Riesz transforms.

15:30 – 15:50 N. Komuro (Hokkaido U. of Ed. at Asahikawa)
Facial structure of convex sets and applications.

16:00 – 16:20 C. Winsløw (Royal Danish Sch. of Ed. Studies)
Global structure in von Neumann algebra theory.

16:20 – 16:40 P. Dowling (Miami U.)
Asymptotically isometric copies of c_0 in dual spaces.

16:40 – 17:00 S. L. Blyumin (Lipetsk State Tech. U.)
Von Neumann relations over Heyting lattices.

Room D Chairman: C. C. Yang

15:10 – 15:30 T. Y. P. Chern (I-Shou U.)
The existence theorem of proximate lower ϕ-order and its applications.

15:30 – 15:50 L. M. T. Sanchez (IPN, Mexico)
Some results about Q_p and B_p spaces.

16:00 – 16:20 H. Wulan (Inner Mongolia Normal U.)
A new characterization of normal functions.

16:20 – 16:40 S. A. Makhmutov (Ufa State Aviation Tech. U.)
On weighted Yosida functions.

16:40 – 17:00 V. K Tuan (Kuwait U.)
Paley-Wiener- and Boas-type theorems for a class of integral transforms.

Room E Chairman: F. Altomare

15:10 – 15:30 J. Banasiak (U. of Natal)
Some extensions of Miyadera-Voigt perturbation theorem with applications.

15:30 – 15:50 A. Attalienti (U. di Bari)
Degenerate evolution problems and beta-type operators.

16:00 – 16:20 N. Okazawa (Sci. U. of Tokyo)
Perturbation theory for m-accretive operators and generalized complex Ginzburg-Landau equations.

16:20 – 16:40 T. Takenaka (Chubu U.)
Local C-cosine families and local n-times integrated cosine families.

16:40 – 17:00 J. Myjak (U. of L'Aquila)
Fractals, semifractals and Markov operators.

Tuesday, Jan. 18, 2000
College of Science Building, NSYSU

08:30 – 9:50 Parallel Sessions of 40-minute Lectures

1. **Numerical Ranges** (**Room A**, Chairman: P. Y. Wu)
   (a) M. D. Choi (Toronto)
   Dilations and numerical ranges.
   (b) C. K. Li (William and Mary)
   Linear operators preserving numerical ranges and radii.
2. **Convex Analysis, I** (**Room B**, Chairman: J. C. Yao)
   (a) F. Giannessi (U. of Pisa)
   Some topics on (scalar and vector) variational inequalities.
   (b) A. H. Siddiqi (KFUTM, Saudi Arabia),
   TBA

3. **Nonlinear Analysis** (**Room C**, Chairman: H. C. Wang)
   (a) Y. F. Fang (Cheng Kung U.)
   Existence and uniqueness for Davey-Stewartson system on a circle.
   (b) M. J. Huang (Tsing Hua U.)
   Comparison theorems for eigenvalues of one-dimensional Schrodinger operators.
4. **Value distribution theory, II** (**Room D**, Chairman: S. Mori)
   (a) K. Tohge (Kanazawa U., Japan)
   On value distribution of algebroid functions.
   (b) Y. Aihara (Numazu College of Tech., Japan)
   Criteria for algebraic dependence of meromorphic mappings.

10:10 – 12:20 Parallel Sessions of 20-minute Talks

Room A Chairman: O. Blasco

10:10 – 10:30 K. Goebel (Maria Curie-Sklodowska U.)
Exotic problems in metric fixed point theory.

10:30 – 10:50 Pawan K. Jain (U. of Delhi)
A class of Banach spaces with weak-angelic dual unit balls.*

10:50 – 11:10 W. J. Kaczor (Maria Curie-Sklodowska U.)
Some remarks about uniformly lipschitzian mappings and lipschitzian retractions.

11:20 – 11:40 A. Kaminska (U. of Memphis)
Order convexity and concavity properties in Lorentz spaces with arbitrary weight.

11:40 – 12:00 J. Gao (Community College of Philadelphia)
Normal structure and the arc length in Banach spaces.

12:00 – 12:20 Y. H. Lin (Nat'l Changhua U. of Ed)
Some complemented subspace problem.

Room B Chairman: W. A. Kirk

10:10 – 10:30 R. Ahmad (Aligarh Muslim U.)
A perturbed Ishikawa iterative algorithm for general mixed multivalued mildly non-linear variational inequalities.

10:30 – 10:50 D. A. Ayoshin (Hirosaki U.)
A construction of the optimal path in a multi–choice game.

10:50 – 11:10 C. Lennard (Pittsburgh)
Subsets of ℓ_1 with the fixed point property for asymptotically nonexpansive mappings.

11:20 – 11:40 Y. C. Lin (Nat't Sun Yat-sen U.)
General KKM theorem with applications to minimax and variational inequalities.

11:40 – 12:00 L. J. Lin (Nat'l Changhua U. of Ed.)
Coincidence theorems, fixed point theorems and equilibrium problems.

12:00 – 12:20 B. Sims (U. of Newcastle, Australia)
A new direction in the investigation of metric fixed point theory.

Room C Chairman: Anthony T.-M. Lau

10:10 – 10:30 J. H. Fourie (Potchefstroom U.)
Summing multipliers and nuclearity of operators on sequence spaces.

10:30 – 10:50 M. D. A. Vigil (U. de Granada)
James' Theorem and numerical radius attaining operators.

10:50 – 11:10 Y. N. Law (U. of Hong Kong)
Some additive-preserver problems.

11:20 – 11:40 M. S. Moslehian (Ferdowsi U.)
On local cohomology of Banach algebras.

11:40 – 12:00 S. B. Joshi (Walchand College of Engineering)
Analytic functions with negative coefficients for operator on Hilbert space.

12:00 – 12:20 R. Aulaskari (U. of Joensuu)
Some inequalities for Q_p functions.

Room D Chairman: H. C. Wang

10:10 – 10:30 K. I. Nakamura (U. of Electro-Communications, Japan)
Effective speed of traveling wavefronts in periodic inhomogeneous media.

10:30 – 10:50 M. Taniguchi (Tokyo Inst. of Tech.)
Traveling curved fronts in the generalized mean curvature flow.

10:50 – 11:10 C.-T. Wu (Tech. Univ. Wien Wiendner, Austria)
On weak Brownian motions of arbitrary order.

11:20 – 11:40 N. Ishimura (Hitotsubashi U.)
Nonexistence of monotonic solutions of some third order ODE relevant to the Kuramoto-Sivashinsky equation.

11:40 – 12:00 S.-I. Nakagiri (Kobe U.)
The coupled sine-Gordon equations as nonlinear second order evolution equations.

Lunch

14:00 – 15:20 Parallel Sessions of 40-minute Lectures

1. **Matrix Analysis, II** (**Room A**, Chairman: T. Ando)
   (a) F. Hiai (Tohoku)
   Random matrix models in free probability theory.
   (b) C. R. Johnson (William and Mary)
   Determinantal inequalities: Ancient history and recent advances.
2. **Convex Analysis, II** (**Room B**, Chairman: S. Y. Wu)
   (a) Y. Alber (Technion-Israel Inst. Tech.)
   Generalized projections and orthogonal decompositions in Banach spaces.
   (b) Q. H. Ansari (Aligarh Muslim U., India),
   The system of vector equilibrium problems and its applications.

3. **Optimization Theory, II** (**Room C**, Chairman: H. C. Lai)
   (a) Anthony T.-M. Lau (Alberta)
   Invariantly complemented subalgebras in the dual of the Fourier algebra.
   (b) K. Mizukami (Hiroshima U.)
   New recursive algorithm for solving algebraic Riccati equation with small parameter.
4. **Stochastic Analysis** (**Room D**, Chairman: Y. J. Lee)
   (a) T. Hida (Meijo)
   Reversibility and irreversibility of random evolutional phenomena in terms of white nose.
   (b) D. Nualart (U. of Barcelona)
   Stochastic calculus with respect to fractional Brownian motion.

15:40 – 16:40 Parallel Sessions of 20-minute Talks

Room A Chairman: Denny Leung

15:40 – 16:00 T. Nishishiraho (U. of the Ryukyus)
The best approximation by projections in Banach spaces.

16:00 – 16:20 P. L. Papini (U. of Bologna)
On weakly uniformly convex spaces, according to Calder.

16:20 – 16:40 C. Zanco (U. di Milano)
Almost-flat locally-finite tilings of spheres in Banach spaces.

Room B Chairman: P. Y. Wu

15:40 – 16:00 T. Y. Tam (Auburn U.)
Numerical ranges and Lie groups.

16:00 – 16:20 K. Okubo (Hokkaido U. of Ed)
Uniqueness of matrix square roots under the restriction of the numerical range.

16:20 – 16:40 O. Pashaev (Academia Sinica)
Equivalence relation and bilinear representation for derivative nonlinear Schrödinger type equations.

Room C Chairman: L. J. Lin

15:40 – 16:00 I. Beg (Kuwait U.)
Random fixed points and iteration process for asymptotically nonexpansive random maps.

16:00 – 16:20 D. Kuroiwa (Shimane U.)
Set optimization with set-valued maps.

16:20 – 16:40 N. Shioji (Yokohama Nat'l U.)
Existence of periodic solutions under saddle point type conditions.

Room D Chairman: Fon-Che Liu

15:40 – 16:00 T. Ogiwara (Josai U.)
Monotonicity and asymptotical stability of traveling waves for some degenerate diffusion equations,

16:00 – 16:20 K. Taira (U. of Tsukuba)
Positive solutions of diffusive logistic equations.

16:20 – 16:40 N. R. Shieh (Nat'l Taiwan U.)
Recent Analysis of Brownian fractals.

Banquet at 19:00 at Kingship Hotel

Wednesday, Jan. 19, 2000
College of Science Building, NSYSU

08:30 – 09:30 Keynote speech by Gilles Pisier (Texas A&M, Paris VI)
Similarity problems and length. (Chairman: P. Y. Wu)

09:50 – 11:10 Parallel Sessions of 40-minute Lectures

1. **Operator Algebras** (**Room A**, Chairman: N. C. Wong)
   (a) L. G. Brown (Purdue)
   Cancellation properties of Murray-von Neumann Equivalence.
   (b) M. Kusuda (Kansai U.)
   C-crossed products of C*-algebras with the weak Banach-Saks property by coactions.*
2. **Nonlinear PDEs, I** (**Room B**, Chairman: J. S. Guo)
   (a) M. Mimura (Hiroshima U.)
   Singular limit procedures in reaction-diffusion equations.
   (b) J. N. Wang (Cheng Kung U.)
   Inverse backscattering in even dimensions.
3. **KKM and Fixed Point Theory, I** (**Room C**, Chairman: L. J. Lin)
   (a) S. Park (Seoul)
   Fixed point and non-retract theorems classical circular tours.
   (b) G. X. Z. Yuan (Queensland)
   The study of KKM theory and some applications.
4. **Fourier Analysis** (**Room D**, Chairman: C. P. Chen)
   (a) S. Igari (Tohoku)
   An estimate of the Kakeya maximal operator.

Lunch

Sight-seeing Tour of City Kaohsiung

Thursday, Jan. 20, 2000
I-Shou University

08:40 – 09:10 Welcome Message form President Shen-Li Fu of I-Shou University

09:20 – 10:40 Parallel Sessions of 40-minute Lectures

1. **Banach Space Theory, II** (**Room A**, Chairman: S. T. Tu)
   - (a) B. S. Tam (Tamking U.)
     A cone-theoretical approach to the spectral theory of positivelinear operators: the finite dimensional case.
   - (b) G. Ding (Nankai)
     On the perturbations and extension of isometries.
2. **Nonlinear PDEs, II** (**Room B**, Chairman: K. M. Hui)
   - (a) S. Yotsutani (Ryukoku)
     Canonical forms related with radial solutions of semilinear elliptic equations and its applications.
   - (b) H. C. Wang (Tsing Hua U.)
     Semilinear elliptic equations in unbounded domains.
3. **KKM and Fixed Point Theory, II** (**Room C**, Chairman: L. J. Lin)
   - (a) W. A. Kirk (Iowa)
     Fixed point theory and nonexpansive mappings.
   - (b) W. Takahashi (Tokyo Inst. of Tech.)
     Approximating fixed points and convex minimization problems.
4. **Operator Semigroups, II** (**Room D**, Chairman: W. Arendt)
   - (a) C. C. Kuo (Fu Jen Catholic U.)
     On the linear Volterra equations and integrated solution families.
   - (b) P. Q. Vu (Ohio)
     The Lyapunov-Sylvester equations and asymptotic behavior of differential equations.

11:00 – 12:00 Parallel Sessions of 20-minute Talks

Room A Chairman: K. Goebel

11:00 – 11:20 A. Bufetov (Independent U. of Moscow)
Ergodic theorems for actions of several contracting operators.

11:20 – 11:40 B. Randrianantoanina (Miami U.)
Isometries and contractive projections in Orlicz spaces.

11:40 – 12:00 N. Randrianantoanina (Miami U.)
Non-reflexive subspaces of $K(H)$.

Room B Chairman: H. C. Lai

11:00 – 11:20 J. A. van Casteren (U. of Antwerp)
Some properties of the KMS-function.

11:20 – 11:40 C. J. Zhang (Huaibei Coal Teacher's College)
A class of Implicit variational Inequalities with Applications to Nash Limitations Equilibrium Problem.

11:40 – 12:00 K. Sankar (Sri venkateswara college of engineering)
Magic squares.

Room C Chairman: J. Howroyd

11:00 – 11:20 S. T. Tu (Chung Yuan Christian U.)
Some families of ordinary and partial fractional differentegral equations.

11:20 – 11:40 W. K. Tang (Nayang Tech. U.)
On Baire-1 Functions.

11:40 – 12:00 C. W. Leung (Chinese U. of Hong Kong)
Vector-valued submarkov operators and recurrent iterated functions systems.

Room D Chairman: C. P. Chen

11:00 – 11:20 D. Dinh (Inst. of Information Tech., Vietnam)
Continuous algorithms in multivariate n-term approximation by families of integer translates of mixed dyadic scales of a single function.

11:20 – 11:40 H. Gunawan (Inst. of Tech., Indonesia)
Weighted estimates for Stein's maximal function.

11:40 – 12:00 E. Nakai (Osaka Kyoiku U.)
On generalized fractional integrals.

Lunch

14:00 – 15:20 Parallel Sessions of 40-minute Lectures

1. **Banach Space Theory, III** (**Room A**, Chairman: N. C. Wong)
   (a) Borluh Lin (Iowa)
   Some properties related to nested sequences of balls in Banach spaces.
   (b) J. Howroyd (London)
   Projection theorems for fractal dimensions.
2. **Matrix Analysis, III** (**Room B**, Chairman M. H. Shih)
   (a) Wen-Wei Lin (Tsing-Hua U.)
   Canonical Forms for Hamiltonian and Symplectic Matrices and Pencils.
   (b) G. Heinig (Kuwait U.)
   Fast Fourier techniques in structured matrices.
3. **Nonlinear PDEs, III** (**Room C**, Chairman: S. Yotsutani)
   (a) K. M. Hui (Academia Sinica)
   Singular limit of solutions of some degenerate parabolic equations.
   (b) S. Y. Tzeng (Changhau U. of Ed.)
   A minimax method for semilinear elliptic equations.
4. **Value distribution theory, III** (**Room D**, Chairman: I. V. Ostrovskii)
   (a) S. Mori (Yamagata U.)
   A space of meromorphic mappings and deficiencies.
   (b) A. P. Singh (U. of Jammu)
   Dynamics of composite entire functions.

15:40 – 16:40 Keynote speech by R. T. Rockafellar (Washington)
Variational analysis and optimization. (Chairman: H. C. Lai)

Friday, Jan. 21, 2000
Sight-seeing Tour of Kenting National Park

Stuttle Buses Pick-up time table

Monday (1/17)

- Morning: Hotels $\rightarrow$ Campus
  - Howard: 7:30AM Bus #5 (40 seater Bus $\times$ 1)
  - Kingship:
    - 7:40AM Bus #1, #2 (20 seater Bus $\times$ 2)
    - 8:00AM Bus #4 (20 seater Bus $\times$ 1)
  - Chinatrust
    - 7:40AM Bus #3 (20 seater Bus $\times$ 1)
    - 7:50AM Bus #4 (20 seater Bus $\times$ 1)
- Evening: Campus $\rightarrow$ Hotels
  All Buses start at 17:30PM at pick-up point in front of College of Science Building.

Tuesday (1/18)

- Morning: Hotels $\rightarrow$ Campus: Same as Monday morning
- Evening:
  - Campus (17:00PM) $\rightarrow$ Hotels $\rightarrow$ Banquet (Kingship)
    - Bus #1, #2, #3, #4 $\rightarrow$ Kingship $\rightarrow$ Chinctrust (#3, #4 18:45PM) $\rightarrow$ Banquet (Kingship)
    - Bus #5 $\rightarrow$ Howard (18:30PM) $\rightarrow$ Banquet (Kingship)
  - Campus (18:30PM) $\rightarrow$ Banquet (Kingship)
    - Bus #1, #2 $\rightarrow$ Banquet (Kingship)
  - Banquet (21:00PM) $\rightarrow$ Hotels & Campus
    - Bus #5 $\rightarrow$ Howard
    - Bus #3, #4 $\rightarrow$ Chinatrust & Campus

Wednesday (1/19)

- Morning: Same as Monday morning. But
  - Howard: Bus #6 (40 seater Bus $\times$ 1) instead of Bus #5
- Noon:
  - All Buses to Hotels start at 12:30PM
    - Kingship & Chinatrust: #1, #2
    - Howard: Bus #3
  - Tour Buses (Bus #6, #7) start at 12:30PM

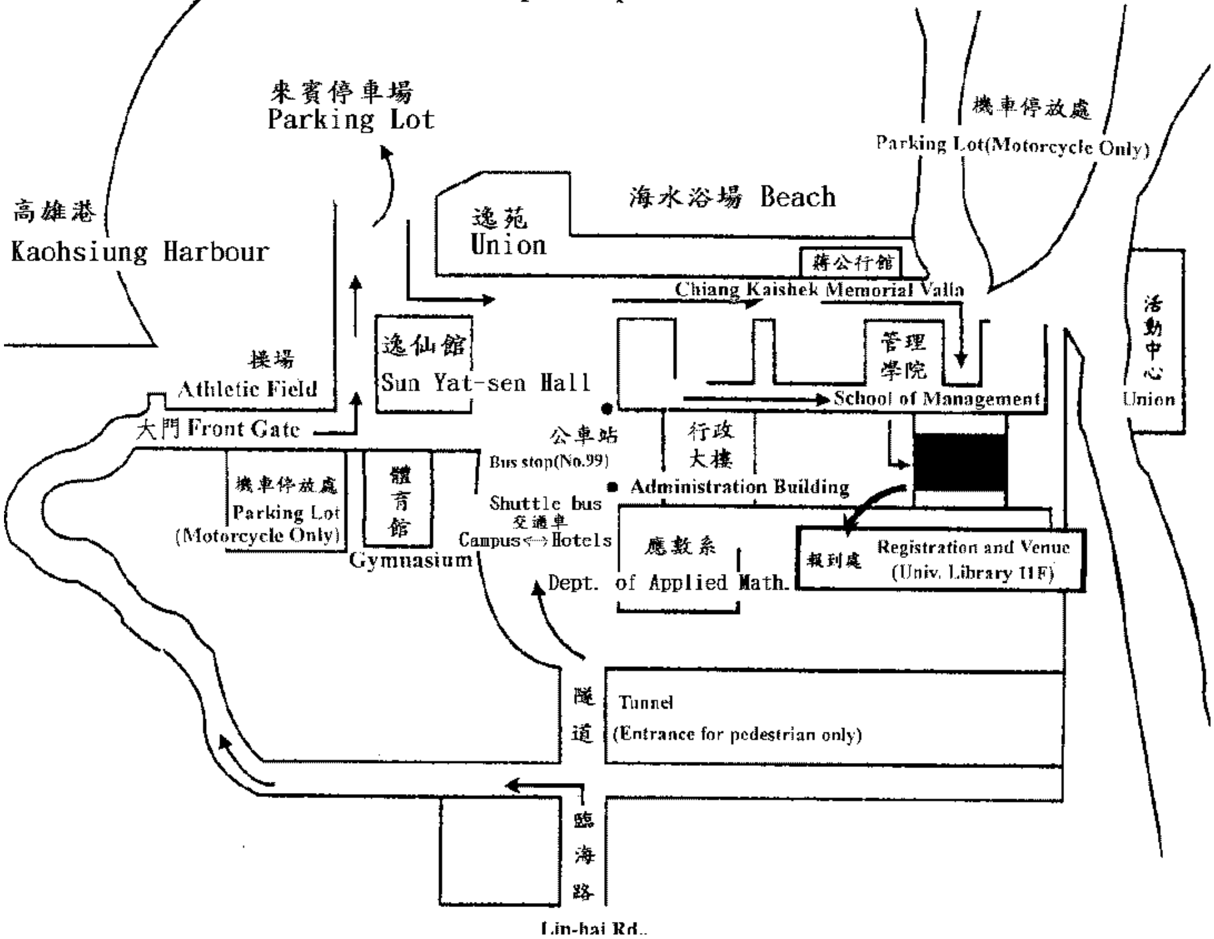
Thursday (1/20)

- Morning:
  - Howard: Bus #5 7:00AM
  - Kingship: Bus #1, #2, #8 (40 seater bus) 7:00AM

- Chinatrust: Bus #1, #2 7:10AM
- Campus: Bus #3 7:00AM

- Evening
  All Buses to Hotels start at 17:30PM
  - Bus #1, #2 → Chinatrust & Kingship
  - Bus #5 → Howard

Campus Map of NSYSU



In addition:

1. The rate for guest parking in NT$60/day. No charge for motorcycle. Vehicles parked in non-designated area will be subject to tow. (There will be a processing fee of NT$ 1,300 for each violating car and NT$500 for each motorcycle.)

2. Attendants for the conference are eligible for a discount parking rate at NT$20/day. See registration desk for detail.