

## Welcome to ISOPE-2004

We greatly appreciate the excellent responses and help we have received from colleagues around the world in the successful organization of the 14th International Offshore and Polar Engineering Conference (ISOPE-2004), Toulon, May 23–28, 2004. The Conference features **91 sessions of refereed papers** and **3 plenary sessions** from more than **46** countries, including the ISOPE Friction Stir Welding (FSW) Symposium.

The purposes of the ISOPE conference are to:

- Promote technological progress and activities, international technological transfer and cooperation, and opportunities for engineers to maintain and improve technical competence; and
- Provide a timely international forum for technical activities, cooperation, opportunity and fellowship among researchers and engineers,

by developing focused session topics with high quality (in both originality and significance) papers accepted through rigorous review, establishing high international standards for publication and worldwide distribution and promoting interdisciplinary interaction between academia and industry.

The International Society of Offshore and Polar Engineers (ISOPE) has already held 25 successful international meetings:

- The 1st (1990) European Offshore Mechanics Symposium (ISOPE EUROMS-90) Trondheim, 1990; EUROMS-99 Moscow.
- The 1st (1990) Pacific/Asia Offshore Mechanics Symposium (ISOPE-PACOMS-90) Seoul; PACOMS-94 Beijing; PACOMS-96 Pusan and PACOMS-2002 Daejeon.
- The Annual ISOPE conferences, starting in Edinburgh, 1991 were held in San Francisco, Singapore, Osaka, The Hague, Los Angeles, Honolulu, Montréal, Brest, Seattle, Stavanger, Kitakyushu and Honolulu. Since 1992, the annual ISOPE Conference has been held with the world's largest technical program of its kind with refereed papers;
- The 1st (1995) ISOPE Ocean Mining Symposium (OMS-95), Tsukuba, 1995, ISOPE OMS-97 Seoul, OMS-99 Goa, OMS-2001 Szczecin and OMS-2003 Tsukuba;
- The 1st (1996) International Deep-Ocean Technology (IDOT-96) Symposium and Workshop, Los Angeles; and IDOT-2001 Stavanger.

On behalf of the Technical Program Committee, it is our pleasure to welcome participants from all over the world to the ISOPE-2004 Conference in Toulon.

Jin S Chung, USA	Guy Herrouin, France
Ronald H Knapp, USA	Wataru Koterayama, Japan
	Ivar Langen, Norway

Co-chairmen of the ISOPE-2004 Conference

**SUNDAY MAY 23**

09:00 ISOPE Board of Directors Meeting Tesse, 2F

12:00  
ISOPE-2004 Executive Committee Meeting Tesse, 2F  
EUROMS and PACOMS Executive Committees

15:00-18:00  
CONFERENCE REGISTRATION Reception Desk, Lobby

18:00-19:00  
CONFERENCE RECEPTION Hotel Mercure

For Tour Information Click on <http://isope2004.tvt.fr>  
(See ISOPE bulletin board in Registration Area)

Spouse Program (<http://www.isope.org>) See bulletin board

**MONDAY MAY 24**

07:30  
**On-Site Registration** starts at 07:30 (Monday only)

07:30 **Author Briefing** Hotel Mercure-Terrace

08:30  
**Conference Opening** Vauban  
**Conference Opening Addresses**  
National and Regional Authorities

09:15  
1. **OCEAN TECHNOLOGY REVIEW (V. 1)** Vauban

13:20  
**PLENARY I (Environment, V. 3)** Vauban

14:00  
2. **OFFSHORE I: Subsea Install. & Operation (V. 1)** Vauban  
3. **METOCEAN I: Waves (V. 3)** Colbert  
4. **HYDRO Dynamics and Forces I (V. 3)** Bonaparte  
5. **GEOTECH I: Centrifuge Medeling ... (V. 2)** Port Cros, H\*  
6. **DECOMMISSIONING I: (V. 1)** Porquerolles, H\*  
7. **HYDRATES AND MINING I (V. 1)** Raimu 1  
8. **FLOW-INDUCED VIBRATIONS I (V. 3)** Raimu 2  
9. **POLAR & ICE I: Polar Research (V. 1)** Dumont  
10. **MECHANICS & STRUCTURES I (V. 4)** Puget

17:00  
ISOPE Technical Committee Meetings Colbert and Bonaparte  
\* H = *Hotel Mercure*

07:30 **Author Briefing** Hotel Mercure-Terrace

Sunday - Thursday	
Audio/Visual Practice	Courdouan, 2F
On-site Registration	Reception Desk, Lobby Floor
Conference Headquarters	Tesse
Proceedings Pickup/Sales	Reception Desk

**TUESDAY MAY 25**

07:30 Author Briefing

Hotel Mercure-Terrace

08:00

11. OFFSHORE II: Nonlinear Wave Loads (V. 1)	Vauban
12. METOCEAN II: Waves & Sea State 1 (V. 3)	Colbert
13. HYDRO Dynamics and Forces II (V. 3)	Bonaparte
14. GEOTECH II: Piles & Caissons (V. 2)	Port cros, H*
15. DECOMMISSIONING II: Panel (V. 1)	Porquerolles, H*
16. HYDRATES AND MINING II (V. 1)	Raimu 1
17. FLOW-INDUCED VIBRATIONS II (V. 3)	Raimu 2
18. POLAR & ICE II: Ice Engineering 1 (V. 1)	Dumont
19. MECHANICS & STRUCTURES II (V. 4)	Puget

10:40

20. OFFSHORE III: FPSO/TLP/VLFS 1 (V. 1)	Vauban
21. METOCEAN III: Waves & Sea State 2 (V. 3)	Colbert
22. HYDRO Dynamics and Forces III (V. 3)	Bonaparte
23. GEOTECH III: Piles & Anchors (V. 2)	Port cros, H*
24. ROV KAIKO ACCIDENT: Review and ... (V. 2)	Porquerolles, H*
25. MATERIALS/WELDING/FATIGUE I (V. 4)	Raimu 1
26. HYDRATES AND MINING III (V. 1)	Raimu 2
27. POLAR & ICE III: Ice Engineering 2 (V. 1)	Dumont
28. RELIABILITY, RISK & SAFETY I (V. 4)	Puget

13:20

<b>PLENARY II</b> (Geotechnical Eng. V. 2)	Port cros, Hotel
--	------------------

14:00

29. OFFSHORE IV: FPSO/TLP/VLFS 2 (V. 1)	Vauban
30. METOCEAN IV: Sea State & Current (V. 3)	Colbert
31. COASTAL ENG I: Coastal Waves (V. 3)	Bonaparte
32. GEOTECH IV: Soil Dynamics (V. 2)	Port cros, H*
33. ENVIRONMENT & SENSING (V. 1)	Porquerolles, H*
34. MATERIALS/WELDING/FATIGUE II (V. 4)	Raimu 1
35. PIPELINES/RISERS/MOORING I (V. 2)	Raimu 2
36. POLAR & ICE IV: Ice Engineering 3 (V. 1)	Dumont
37. RELIABILITY, RISK & SAFETY II (V. 4)	Puget

16:30 Board of Editors Meeting

Tesse

19:00 ISOPE-2004/ISOPE-2005 Seoul TPC Meeting

See bulletin board

\* H = *Hotel Mercure*

Sunday - Thursday	
Audio/Visual Practice	Courdouan, 2F
On-site Registration	Reception Desk, Lobby Floor
Conference Headquarters	Tesse
Proceedings Pickup/Sales	Reception Desk

**WEDNESDAY MAY 26**

07:30 Author Briefing	Hotel Mercure–Terrace
08:00	
38. OFFSHORE V: FPSO/SPAR/TLP/VLFS 3 (V. 1)	Vauban
39. METOCEAN V: Climatology (V. 3)	Colbert
40. COASTAL ENG II: Breakwaters 1 (V. 3)	Bonaparte
41. GEOTECH V: Soil Properties 1 (V. 2)	Port cros, H*
42. AUV & ROBOTICS I (V. 2)	Porquerolles, H*
43. FSW I: Mechanisms & Modeling (V. 4)	Raimu 1
44. PIPELINES/RISERS/MOORING II (V. 2)	Raimu 2
45. POLAR & ICE V: Ice Environment & Icing (V. 1)	Dumont
46. RELIABILITY, RISK & SAFETY III (V. 4)	Puget
10:40	
47. OFFSHORE VI: FPSO/SPAR/TLP/VLFS 4 (V. 1)	Vauban
48. METOCEAN VI: Hindcast (V. 3)	Colbert
49. COASTAL ENG III: Breakwaters 2 (V. 3)	Bonaparte
50. GEOTECH VI: Soil Properties 2 (V. 2)	Port cros, H*
51. AUV & ROBOTICS II (V. 2)	Porquerolles, H*
52. FSW II: Steels (V. 4)	Raimu 1
53. OCEAN & WIND ENERGY I (V. 1)	Raimu 2
54. POLAR & ICE VI: Icing (V. 1)	Dumont
55. ADVANCED SHIP TECHNOLOGY I (V. 4)	Puget
13:20	
PLENARY III (Canadian Code, V. 1)	Vauban
14:00	
56. OFFSHORE VII: FPSO/SPAR/TLP/VLFS 5 (V. 1)	Vauban
57. HYDRO Dynamics and Forces IV (V. 3)	Colbert
58. COASTAL ENG IV: Erosion & Transport (V. 3)	Bonaparte
59. GEOTECH VII: Foundation (V. 2)	Port cros, H*
60. AQUABIO MECHANICS & ROBOTICS (V. 2)	Porquerolles, H*
61. SW III: Steels and Alloys (V. 4)	Raimu 1
62. PIPELINES/RISERS/MOORING III (V. 2)	Raimu 2
63. OCEAN & WIND ENERGY II (V. 1)	Dumont
64. ADVANCED SHIP TECHNOLOGY II (V. 4)	Puget

\* H = *Hotel Mercure*

Find Updates in Program on Website:  
<http://www.isopec.org> or <http://isopec2004.tvt.fr>

18:30	Hieres
<b>Annual Conference Banquet</b> <b>Cultural Program and Best Paper and ISOPE Awards</b> <i>Bus departs 18:30 from Neptune Conference Center.</i>	

**THURSDAY MAY 27**

07:30 Author Briefing

Hotel Mercure-Terrace

08:00

65. OFFSHORE VIII: FPSO/SPAR/TLP/VLFS 6 (V. 1)	Vauban
66. HYDRO Nonlinear Waves I (V. 3)	Colbert
67. COASTAL ENG V: Tsunami & Current (V. 3)	Bonaparte
68. GEOTECH VIII: Soil & Stability 1 (V. 2)	Port cros, H*
69. TOWED CABLES & UNDERWAT ... (V. 2)	Porquerolles, H*
70. MATERIALS/WELDING/FATIGUE III (V. 4)	Raimu 1
71. PIPELINES/RISERS/MOORING IV (V. 2)	Raimu 2
72. OCEAN & WIND ENERGY III (V. 1)	Dumont
73. COLLISION, IMPACT & DAMAGE (V. 4)	Puget

10:40

74. OFFSHORE IX: Offshore Engineering 1 (V. 1)	Vauban
75. HYDRO Nonlinear Waves II (V. 3)	Colbert
76. COASTAL ENG VI: Estuary Process (V. 3)	Bonaparte
77. GEOTECH IX: Soil & Stability 2 (V. 2)	Port cros, H*
78. UNDERWATER OBSERV & INTERV (V. 2)	Porquerolles, H*
79. MATERIALS/WELDING/FATIGUE IV (V. 4)	Raimu 1
80. PIPELINES/RISERS/MOORING V (V. 2)	Raimu 2
81. OCEAN & WIND ENERGY IV (V. 1)	Dumont
82. COMPOSITES & SMART STRUCTURES I (V. 4)	Puget

13:00

OMWG Meeting Tesse

83. OFFSHORE X: Offshore Engineering 2 (V. 1)	Vauban
84. HYDRO Nonlinear Waves III (V. 3)	Colbert
85. COASTAL ENG VII: Ship Operations (V. 3)	Bonaparte
86. GEOTECH X: Soil & Stability 3 (V. 2)	Port cros, H*
87. OPTICAL & ACOUSTIC. MAPPING (V. 2)	Porquerolles, H*
88. MATERIALS/WELDING/FATIGUE V (V. 4)	Raimu 1
89. PIPELINES/RISERS/MOORING VI (V. 2)	Raimu 2
90. OCEAN & WIND ENERGY V (V. 1)	Dumont
91. COMPOSITES & SMART STRUCTURES II (V. 4)	Puget

\* H = *Hotel Mercure*

**FRIDAY MAY 28**

**Technical Visit:** Click on <http://isope2004.tvt.fr> and see the bulletin board on site.

**Other Optional Tours:** Click on <http://isope2004.tvt.fr>, visit the conference registration desk, and check the ISOPE bulletin board on May 23, Sunday.

## ISOPE-2004 Toulon

The Conference features **91** technical and opening sessions and **3** plenary sessions with top experts from industry, academia and government. About 470 papers after review will be presented and discussed by researchers, engineers and managers from more than 46 countries.

The Conference Proceedings will be available in a set of 4 volumes on CD-ROM (2,800 pp. est.) — paginated within each volume — during the conference and later for worldwide post-conference mail order from ISOPE.

### SESSION LIST BY TOPICS

#### OCEAN TECHNOLOGY REVIEW

**1. OCEAN TECHNOLOGY REVIEW (V. 1)** Vauban

#### GAS HYDRATES AND OCEAN MINING

**7. HYDRATES AND MINING I (V. 1)** Raimu 1  
**16. HYDRATES AND MINING II (V. 1)** Raimu 1  
**26. HYDRATES AND MINING III (V. 1)** Raimu 2

#### OCEAN & OFFSHORE WIND ENERGY

**53. OCEAN & WIND ENERGY I (V. 1)** Raimu 2  
**63. OCEAN & WIND ENERGY II (V. 1)** Dumont  
**72. OCEAN & WIND ENERGY III (V. 1)** Dumont  
**81. OCEAN & WIND ENERGY IV (V. 1)** Dumont  
**90. OCEAN & WIND ENERGY V (V. 1)** Dumont

#### OFFSHORE MECHANICS AND TECHNOLOGY

**2. OFFSHORE I: Subsea Installation & Operations (V. 1)** Vauban  
**11. OFFSHORE II: Nonlinear Wave Loads (V. 1)** Vauban  
**20. OFFSHORE III: FPSO/TLP/VLFS 1 (V. 1)** Vauban  
**29. OFFSHORE IV: FPSO/TLP/VLFS 2 (V. 1)** Vauban  
**38. OFFSHORE V: FPSO/SPAR/TLP/VLFS 3 (V. 1)** Vauban  
**47. OFFSHORE VI: FPSO/SPAR/TLP/VLFS 4 (V. 1)** Vauban  
**56. OFFSHORE VII: FPSO/SPAR/TLP/VLFS 5 (V. 1)** Vauban  
**65. OFFSHORE VIII: FPSO/SPAR/TLP/VLFS 6 (V. 1)** Vauban  
**74. OFFSHORE IX: Offshore Engineering 1 (V. 1)** Vauban  
**83. OFFSHORE X: Offshore Engineering 2 (V. 1)** Vauban  
**6. DECOMMISSIONING I: (V. 1)** Porquerolles, H\*  
**15. DECOMMISSIONING II: Panel (V. 1)** Porquerolles, H\*

\* H = *Hotel Mercure*

#### OCEAN AND ENVIRONMENT

**33. ENVIRONMENT & SENSING (V. 1)** Porquerolles, H\*

#### GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING

**5. GEOTECH I: Centrifuge Modeling (V. 2)** Port cros, Hotel  
**14. GEOTECH II: Piles & Caissons (V. 2)** Port cros, Hotel  
**23. GEOTECH III: Piles & Anchors (V. 2)** Port cros, Hotel  
**32. GEOTECH IV: Soil Dynamics (V. 2)** Port cros, Hotel  
**41. GEOTECH V: Soil Properties 1 (V. 2)** Port cros, Hotel  
**50. GEOTECH VI: Soil Properties 2 (V. 2)** Port cros, Hotel  
**59. GEOTECH VII: Foundation (V. 2)** Port cros, Hotel  
**68. GEOTECH VIII: Soil & Stability 1 (V. 2)** Port cros, Hotel  
**77. GEOTECH IX: Soil & Stability 2 (V. 2)** Port cros, Hotel

86. GEOTECH X: Soil & Stability 3 (V. 2) Port cros, Hotel

#### OFFSHORE AND ARCTIC PIPELINES, RISERS AND MOORING

35. PIPELINES/RISERS/MOORING I (V. 2) Raimu 2  
44. PIPELINES/RISERS/MOORING II (V. 2) Raimu 2  
62. PIPELINES/RISERS/MOORING III (V. 2) Raimu 2  
71. PIPELINES/RISERS/MOORING IV (V. 2) Raimu 2  
80. PIPELINES/RISERS/MOORING V (V. 2) Raimu 2  
89. PIPELINES/RISERS/MOORING VI (V. 2) Raimu 2

#### AUV, DEEP OCEAN FLOOR AND COMMUNICATION

24. ROV KAIKO ACCIDENT: Review and ... (V. 2) Porquerolles, H  
42. AUV & ROBOTICS I (V. 2) Porquerolles, H  
51. AUV & ROBOTICS II (V. 2) Porquerolles, H  
60. AQUABIO MECHANICS & ROBOTICS (V. 2) Porquerolles, H  
69. TOWED CABLES & UNDERWATER ... (V. 2) Porquerolles, H  
78. UNDERWATER OBSERV. & INTERVEN (V. 2) Porquerolles, H  
87. OPTICAL & ACOUSTICAL MAPPING (V. 2) Porquerolles, H

#### POLAR AND ICE SCIENCE AND ENGINEERING

9. POLAR & ICE I: Polar Research (V. 1) Dumont  
18. POLAR & ICE II: Ice Engineering 1 (V. 1) Dumont  
27. POLAR & ICE III: Ice Engineering 2 (V. 1) Dumont  
36. POLAR & ICE IV: Ice Engineering 3 (V. 1) Dumont  
45. POLAR & ICE V: Ice Environment & Icing (V. 1) Dumont  
54. POLAR & ICE VI: Icing (V. 1) Dumont

#### HYDRODYNAMICS

4. HYDRO Dynamics and Forces I (V. 3) Bonaparte  
13. HYDRO Dynamics and Forces II (V. 3) Bonaparte  
22. HYDRO Dynamics and Forces III (V. 3) Bonaparte  
57. HYDRO Dynamics and Forces IV (V. 3) Colbert  
66. HYDRO Nonlinear Waves I (V. 3) Colbert  
75. HYDRO Nonlinear Waves II (V. 3) Colbert  
84. HYDRO Nonlinear Waves III (V. 3) Colbert  
8. FLOW-INDUCED VIBRATIONS I (V. 3) Raimu 2  
17. FLOW-INDUCED VIBRATIONS II (V. 3) Raimu 2

#### Coastal Engineering

31. COASTAL ENG I: Coastal Waves (V. 3) Bonaparte  
40. COASTAL ENG II: Breakwaters 1 (V. 3) Bonaparte  
49. COASTAL ENG III: Breakwaters 2 (V. 3) Bonaparte  
58. COASTAL ENG IV: Erosion & Transport (V. 3) Bonaparte  
67. COASTAL ENG V: Tsunami & Current (V. 3) Bonaparte  
76. COASTAL ENG VI: Estuary Process (V. 3) Bonaparte  
85. COASTAL ENG VII: Ship Operations (V. 3) Bonaparte

#### METOCEAN

3. METOCEAN I: Waves (V. 3) Colbert  
12. METOCEAN II: Waves & Sea State 1 (V. 3) Colbert  
21. METOCEAN III: Waves & Sea State 2 (V. 3) Colbert  
30. METOCEAN IV: Sea State & Current (V. 3) Colbert  
39. METOCEAN V: Climatology (V. 3) Colbert  
48. METOCEAN VI: Hindcast (V. 3) Colbert

#### MECHANICS, RELIABILITY, RISK & SAFETY

10. MECHANICS & STRUCTURES I (V. 4) Puget  
19. MECHANICS & STRUCTURES II (V. 4) Puget

28. RELIABILITY, RISK & SAFETY I (V. 4)	Puget
37. RELIABILITY, RISK & SAFETY II (V. 4)	Puget
46. RELIABILITY, RISK & SAFETY III (V. 4)	Puget

**ADVANCED SHIP TECHNOLOGY**

55. ADVANCED SHIP TECHNOLOGY I (V. 4)	Puget
64. ADVANCED SHIP TECHNOLOGY II (V. 4)	Puget

**Collision, Impact and Damage**

73. COLLISION, IMPACT & DAMAGE (V. 4)	Puget
---------------------------------------	-------

**ISOPE Symposium on  
FRICTION STIR WELDING (FSW)**

43. FSW I: Mechanisms & Modeling (V. 4)	Raimu 1
52. FSW II: Steels (V. 4)	Raimu 1
61. FSW III: Steels and Alloys (V. 4)	Raimu 1

**MATERIALS, WELDING, JOINT AND FATIGUE**

25. MATERIALS/WELDING/FATIGUE I (V. 4)	Raimu 1
34. MATERIALS/WELDING/FATIGUE II (V. 4)	Raimu 1
70. MATERIALS/WELDING/FATIGUE III (V. 4)	Raimu 1
79. MATERIALS/WELDING/FATIGUE IV (V. 4)	Raimu 1
88. MATERIALS/WELDING/FATIGUE V (V. 4)	Raimu 1

**COMPOSITES AND SMART STRUCTURES**

82. COMPOSITES & SMART STRUCTURES I (V. 4)	Puget
91. COMPOSITES & SMART STRUCTURES II (V. 4)	Puget

<b>ISOPE Reception</b> 18:00-19:00 SUNDAY May 23	Mercure Hotel
---	---------------

<b>Conference Opening Address</b> 08:30 Monday May 24	Vauban
--	--------

<b>Annual Conference Banquet</b> 18:30 Wednesday May 26	Hyerès
--	--------

*Bus departs 18:30 from Neptune Conference Center.*

**Plenary Presentations**

**Plenary Presentation I: Monday 13:20** Vauban

<b>Numerical Modeling of Environmental Impact Assessment of Ocean Structures (V. 3)</b> Kyojuka, Y, Kyushu University, Japan
---

**Plenary Presentation II: Tuesday 13:20** Port Cros, Hotel

<b>Centrifuge Modeling in Offshore Engineering (V. 2)</b> Garnier, J, Laboratoire Central des Ponts et Chaussées, France
---

**Plenary Presentation III: Wednesday 13:20** Vauban

<b>Up-dating the Canadian Standards Association Offshore Structures Code (V. 1)</b> Frederking, R, National Research Council; Brown, T, Univ of Calgary; Grant, R, CBCL Limited, Canada
---



## ISOPE-2004 Technical Program Committee (TPC)

Dr. H. Allersma, Delft Univ. of Technology, Delft, The Netherlands  
Dr. Taro Aoki, JAMSTEC, Japan  
Dr. H. Asahi, Nippon Steel Co., Japan  
Dr. R. Ayer, ExxonMobil Research & Engineering Co., Annandale, NJ, USA  
Prof. S.C. Bang, South Dakota School of Mines and Technology, Rapid City, SD, USA  
Prof. A.T. Bekker, Far Eastern State Tech. Univ., Vladivostok, Russia  
Dr. Frank G Bercha, Bercha Engineering Ltd, Calgary, Canada  
Dr. S. Berg, Technip Offshore Engineering, Oslo, Norway  
Dr. L.F. Boswell, City Univ., London, UK  
Dr. H.G. Brandes, Univ. of Hawaii, Honolulu, HI, USA  
Dr. F. Bransby, Univ. of Dundee, Dundee, UK  
Dr. J.L. Cadiou, Ifremer, La Seyne sur Mer, France  
Mr. C. Capanoglu, I.D.E.A.S., Inc., San Francisco, CA, USA  
Prof. J.R. Chaplin, Southampton University, Southampton, UK  
Dr. H.-C. Chen, Texas A & M Univ., College Station, TX, USA  
Prof. J.-W. Chen, National Cheng Kung Univ., Taiwan, China  
Prof. L.-K. Chien, National Taiwan Ocean Univ., Keelung, Taiwan, China  
Prof. H. S. Choi, Seoul National University, Seoul, Korea  
Dr. W.Y. Choo, POSCO, Pohang, Korea  
Dr. Y.S. Choo, National University of Singapore, Singapore  
Prof. Jin S. Chung (**Chairman**), ISOPE, Cupertino, CA, USA  
Prof. G. Clauss, TU Berlin, Berlin, Germany  
Dr. R. Curran, Queen's University of Belfast, Belfast, UK  
Prof. B.M. Das, California State Univ., Sacramento, CA, USA  
Prof. T.H. Dawson, U.S. Naval Academy, Annapolis, MD, USA  
Dr. A.S. Duggal, FMC-SOFEC, Houston, TX, USA  
Dr. P. K. Dutta, USACRREL, Hannover, NH, USA  
Dr. C.P. Ellinas, Mott McDonald Ltd, Croydon, UK  
Mr. G. Ersdal, Norwegian Petroleum Directorate, Stavanger, Norway  
Dr. A. Ewida, PetroCanada, Calgary, Canada  
Dr. J.M. Falzarano, Univ of New Orleans, New Orleans, LA, USA  
Dr. P. Ferrant, Ecole Centrale de Nantes, Nantes, France  
Dr. E. Fontaine, Institut Français du Pétrole, Rueil Malmaison, France  
Dr. A. Francescutto, Univ. of Trieste, Trieste, Italy  
Prof. P. Fraunie, University of Toulon et du Var, Toulon, France  
Dr. R.M.W. Frederking, National Research Council, Ottawa, Canada  
Dr. J. Garnier, Laboratoire Central des Ponts et Chaussées, Bouguenais, France  
Prof. A.M. Gresnigt, Delft Univ. of Technology, Delft, The Netherlands  
Prof. S.T. Grilli, University of Rhode Island, Narragansett, RI, USA  
Dr. A.R. Henderson, Ceasa, Stroud, UK  
Dr. G. Herrouin (**Co-Chairman**), Ifremer, La Seyne sur Mer, France  
Dr. H.-G. Hillenbrand, Europipe GmbH, Germany  
Dr. T. Hiraishi, Port and Airport Research Inst., Yokosuka, Japan  
Dr. S.W. Hong, Korea Research Inst. of Ship and Ocean Engineering, Daejeon, Korea  
Dr. S. Huang, University of Glasgow and Strathclyde, Glasgow, UK  
Prof. T. Huang, Univ. of Texas, Arlington, TX, USA  
Prof. Y. Ikeda, Univ. of Osaka Prefecture, Osaka, Japan  
Prof. Y. Inoue, Yokohama National Univ., Yokohama, Japan  
Dr. K. Izumiyama, National Maritime Research Institute, Tokyo, Japan  
Dr. A. D. Jenkins, University of Bergen, Bergen, Norway  
Dr. C. Jo, Inha University, Incheon, Korea  
Dr. H. Karadeniz, Delft Univ. of Technology, Delft, The Netherlands  
Prof. M. Kashiwagi, Kyushu Univ., Kasuga, Japan  
Dr. K Kato, Kinki Univ., Wakayama, Japan  
Dr. N. Kato, Osaka University, Japan  
Prof. K Kawano, Kagoshima Univ., Kagoshima, Japan  
Prof. C.H. Kim, Texas A & M Univ., College Station, TX, USA  
Dr. M.H. Kim, Texas A & M Univ., College Station, TX, USA  
Prof. S.S. Kim, Hanyang Univ, Ansan, Korea

Prof. R.H. Knapp (**Co-Chairman**), Univ. of Hawaii, Honolulu, HI, USA  
 Dr. J.J. Kollé, Tempres Technologies, Inc, Kent, WA, USA  
 Dr. T. Komai, AIST, Tsukuba, Japan  
 Dr. J. Koo, ExxonMobil Research & Engineering Co., Annandale, NJ, USA  
 Prof. W. Koterayama (**Co-Chairman**), RIAM, Kyushu Univ., Kasuga, Japan  
 Prof. H. Krogstad, NTNU, Trondheim, Norway  
 Prof. C. Kuo, University of Strathclyde, Glasgow, UK  
 Dr. B. Kvamme, University of Bergen, Bergen, Norway ????  
 Prof. Y. Kyozuka, Kyushu Univ., Kasuga, Japan  
 Mr. F. Lalli, APAT, Roma, Italy  
 Prof. I. Langer (**Co-Chairman**), Stavanger University College, Stavanger, Norway  
 P. Lardeau, Ifremer, La Seyne sur Mer, France  
 Dr. B.J. Leira, NTNU, Trondheim, Norway  
 Prof. Y.-C. Li, Dalian Univ. of Technology, Dalian, China  
 Dr. F.K. Lim, 2H Offshore Engineering, Surrey, UK  
 Dr. S.S. Lin, US Naval Facilities Engineering Service Center, Port Hueneme, CA, USA  
 Dr. L.A. Louca, Imperial College, London, UK  
 Dr. K. Ma, HPMG Technologies, Inc, Houston, TX, USA  
 Prof. Y. Makino, Kumamoto Univ., Kumamoto, Japan  
 Dr. T. Mathai, The Glostten Assoc., Seattle, WA, USA  
 Prof. T. Matsui, Osaka Univ., Osaka, Japan  
 Dr. H. Matsumiya, AIST, Tsukuba, Japan  
 Dr. J.-L. Michel, Ifremer, La Seyne sur Mer, France  
 Prof. R.W. Miksad, Univ. of Virginia, Charlottesville, VA, USA  
 Prof. N. Mizutani, Nagoya Univ., Nagoya, Japan  
 Dr. H. Momma, JAMSTEC, Yokosuka, Japan  
 Dr. H. Moshagen, Statoil, Trondheim., Norway  
 Dr. S. Mouring, U.S.Naval Acadmy, Annapolis, MD, USA  
 Prof. H. Murakawa, Osaka University, Osaka, Japan  
 Dr. C.E. Myers, National Science Foundation, Arlington, VA, USA  
 Dr. Y. Nabeshima, Osaka University, Osaka, Japan  
 Prof. S. Naito, Osaka Univ., Osaka, Japan  
 Dr. M. Nakamura, Kyushu Univ., Kasuga, Japan  
 Dr. B.J. Natvig, Marine Technology Consulting AS, Asker, Norway  
 Prof. J.M. Niedzwecki, Texas A&M Univ., College Station, TX, USA  
 Mr. M. Olagnon, IFREMER, Plouzané, France  
 Dr. K. Otsuka, Univ. of Osaka Prefecture, Osaka, Japan  
 Dr. H-I Park, Korea Maritime University, Busan, Korea  
 Prof. R.-S. Park, University of Ulsan, Ulsan, Korea  
 Dr. R. Person, Ifremer, Ifremer, Plouzané, France  
 Prof. E.J. Powers, University of Texas, Austin, TX, USA  
 Dr. M. Prevosto, Ifremer, Plouzané, France  
 Dr. J.C. Price, SBM-IMODCO, Houston, TX, USA  
 Dr. S. Prinsenberg, Bedford Inst of Oceanography, Dartmouth, Canada  
 Prof. V. Rey, University of Toulon, Toulon, France  
 Dr. V. Rigaud, Ifremer, La Seyne sur Mer, France  
 Prof. J. Roesset, Texas A&M Univ., College Station, TX, USA  
 Prof. I. Rychlik, Lund Univ, Lund, Sweden  
 Prof. H. Saeki, Hokkaido Univ., Sapporo, Japan  
 Dr. A.J.N.A. Sarmiento, Lisbon Technical Univ., Lisbon, Portugal  
 Dr. M. Sayed, National Research Council, Ottawa, Canada  
 Dr. G. Schriever, Biolab Forschungsinstitut, Hohenwestedt, Germany  
 Prof. T. Setoguchi, Saga Univ., Saga, Japan  
 Prof. S.H. Sphaier, COPPE/UFRJ, Rio de Janeiro, Brazil  
 Prof. V.A. Squire, Univ. of Otago, Dunedin, New Zealand  
 Dr. T. Sriskandarajah, Granherne Ltd., Surrey, UK  
 Dr. C. T. Stansberg, MARINTEK, Trondheim, Norway  
 Dr. M. Stojanovic, M.I.T., Cambridge, MA, USA  
 Prof. Y. Suga, Keio Univ., Yokohama, Japan  
 Prof. B.M. Sumer, Technical Univ. of Denmark, Lyngby, Denmark  
 Dr. K. Takagi, Osaka University, Osaka, Japan  
 Prof. Y. Tanaka, Kobe Univ., Kobe, Japan  
 Dr. K. Tanizawa, National Maritime Research Institute, Tokyo, Japan

Dr. P. Teigen, Statoil, Trondheim, Norway  
Prof. B. Teng, Dalian Univ. of Technology, Dalian, China  
Dr. M. Teng, Univ. of Hawaii, Honolulu, HI, USA  
Prof. Y. Tomita, Osaka Univ., Osaka, Japan  
Prof. M.S. Triantafyllou, M.I.T., Cambridge, MA, USA  
Dr. E. Tsuru, Nippon Steel Co., Japan  
Prof. S. Ueda, Tottori University, Tottori, Japan  
Prof. Y. Ueda, Osaka Univ., Osaka, Japan  
P. Valverde, TVT, Toulon, France  
Dr. K. S. Varyani, University of Glasgow, Glasgow, UK  
Mr. M. Visser, NAM, Velsen, The Netherlands  
Prof. J. Wardenier, Delft Univ. of Technology, Delft, The Netherlands  
Prof. E. Watanabe, Kyoto University, Kyoto, Japan  
Dr. H.G. Wheat, Univ. of Texas at Austin, Austin, TX, USA  
Dr. H. Wheelodon, ECA, France  
Mr. P.C. Wong, ExxonMobil Development Research Co., Houston, TX, USA  
Dr. J-F Wu, American Bureau of Shipping, Houston, TX, USA  
Dr. A.C. Yalciner, Middle East Technical University, Ankara, Turkey  
Dr. S. Yamaguchi, Kyushu University, Fukuoka, Japan  
Dr. T. Yamazaki, Natl. Inst. of Advanced Industrial Science and Technology, Tsukuba, Japan  
Prof. Yang, J, Shanghai Jiao Tong University, Shanghai, China  
Prof. T. Yao, Osaka Univ., Osaka, Japan  
Prof. R.W. Yeung, Univ. of California, Berkeley, CA, USA  
Prof. J. Yim, National Taiwan Ocean Univ., Keelung, Taiwan, China  
Dr. X. Zhu, Battelle Pipeline Technology Center, Columbus, OH, USA

#### **ISOPE-2004 Executive Committee**

Jin S. Chung (Chairman), USA  
Guy Herrouin, France  
Ronald Knapp, USA  
Wataru Koterayama, Japan  
Ivar Langen, Norway

#### **Conference Co-chairmen**

Jin S. Chung, ISOPE, USA  
Guy Herrouin, Ifremer, La Seyne sur Mer, France  
Ronald Knapp, University of Hawaii, USA  
Wataru Koterayama, Kyushu University, Kasuga, Japan  
Ivar Langen, Stavanger University College, Norway

#### **ISOPE-2004 Sponsor**

International Society of Offshore and Polar Engineers (ISOPE)

**President:** Birger J. Natvig, Norway (2003–2004)

**Executive Director:** Jin S. Chung, USA

#### **ISOPE Board of Directors**

H.S. Choi (Korea), A.M. Gresnigt (The Netherlands), T. Hiraishi (Japan), M. Olagnon (France), E.J. Powers (USA), and M. Sayed (Canada)

#### **PACOMS Executive Committee**

A.T. Bekker (Russia), J.S. Chung (USA), P. Grundy (Australia), S.W. Hong (Korea), M. Isaacson (Canada), W. Koterayama (Japan), S. Naito (Japan), Y.-C. Li (China), S. Soemantri (Indonesia)

#### **EUROMS Executive Committee**

S. Berg (Norway), J.S. Chung (USA), B.J. Natvig (Norway), J. Wardenier (The Netherlands)

#### **Cooperating Organizations**

Canadian Association of Petroleum Producers (CAPP)  
American Society of Civil Engineers (ASCE) - Engineering Mech. Div.  
Korea Committee for Ocean Resources Engineering (KCORE)  
Canadian Society of Civil Engineers (CSCE) - Engineering Mech. Div.

Chinese Society of Ocean Engineers (CSOE)  
Chinese Society of Naval Architects and Marine Engineers (CSNAME)  
Chinese Society of Theoretical and Applied Mechanics (CSTAM)  
Russian Academy of Sciences (RAS)  
Singapore Structural Steel Society (SSSS)  
Norwegian Petroleum Society (NPF)  
The Institution of Engineers Australia (IE Australia)  
Kansai Society of Naval Architects, Japan (KSNAJ)  
Technical Research Centre of Finland (VTT)  
The Society of Materials Science, Japan (JSMS)  
The Offshore Engineering Society, United Kingdom (OES)  
IRO, The Netherlands (IRO)  
Ukraine Society of Mechanical Engineers (USME)  
IFREMER, France  
Scott Polar Research Institute (SPRI), U.K.  
The Institution of Engineers Indonesia (PII)  
Brazilian Society of Naval Architects and Marine Engineers (SOBENA)  
Korean Society of Civil Engineers (KSCE)  
The Deutsche Gesellschaft für Meeresforschung und Meerestechnik (DKMM)  
The Gesellschaft für Maritime Technik (GMT)



*Prospective authors are invited to submit abstract to:*

**ISOPE PACOMS-2004 Vladivostok**

The 6th Pacific/Asia Offshore Mechanics Symposium  
Vladivostok, Russia, September 12-16, 2004

**Call For Papers**

**Abstract Deadline**                      **February 25, 2004**  
**Manuscript Deadline (review)**      **April 15, 2004**

Three-day symposium sessions are being organized with emphasis on:

**Ocean Engineering and Control, Ice Engineering,  
Environment, and Sakhalin Offshore Engineering**

**Send (E-mail or fax) your abstract in 300-400 words to:** (1) One of the IOC members (session organizers); (2) **ISOPE PACOMS-2004 IOC**, ISOPE, P.O. Box 189, Cupertino, California 95015-0189  
USA: Fax: **+1-650-254-2038**; E-mail [meetings@isope.org](mailto:meetings@isope.org). For further detail, visit [www.isope.org](http://www.isope.org).

The ISOPE does not accept any liability for the exhibition at the ISOPE-2004 Toulon Conference and the exhibition-related claims.