

July 6–11

Vancouver, Canada

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**The Eighteenth (2008) International
Offshore (Ocean) and Polar
Engineering Conference**

AND

**1st ISOPE Frontier Energy Resources
(FER-2008) Symposium**

**6th ISOPE High-Performance Materials
(HPM-2008) Symposium**

**2nd ISOPE Strain-Based Design
(SBD-2008) Symposium**

ISOPE-2008

Sheraton Vancouver Wall Center Hotel
Vancouver, Canada; July 6–11

Technical Program

Refereed papers from 48 countries in 114 sessions and
5 plenary sessions

General Information, Reservations, Publication, Author
Index and Program Updates on www.isopec.org

Forms for Advance Registration and Venue Hotel:

Inside this program and on www.isopec.org

Organized by:

Technical Program Committee, ISOPE

Sponsored by:

**International Society of Offshore and Polar Engineers
(ISOPE)**

with cooperating organizations (list inside)



ISOPE, P.O. Box 189
Cupertino, CA 95015-0189, USA
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TECHNICAL PROGRAM

The Eighteenth (2008) International Offshore and Polar Engineering Conference Vancouver, Canada, July 6–11, 2008

The number at end of the session title indicates the tentative number of the proceedings volume. Only the changes on titles or authors the ISOPE-2008 Technical Program Committee (TPC) received in writing before [January 22, 2008](#) are reflected in this program. Final corrections will be updated in the Conference Proceedings of peer-reviewed papers and the Final Program. Proceedings CD-ROM ([ISBN 978-1-880653-70-8](#)) will be available as a set of 4 volumes (3,600 pp. est.) from ISOPE during and after the Conference.

Proceedings papers are **indexed** by [Engineering Index](#) and [Compendex](#) and others.

SUNDAY, July 6

Conference Reception

17:00

Pavilion Ballroom and Foyer, 3F

MONDAY 09:00

1. OFFSHORE AND ARCTIC REVIEW — 2008 (V. 1)

Monday July 7 09:00 Grand Ballroom

Chair: Isaacson, M, University of British Columbia, Canada

Co-Chair: Naito, S, Osaka University, Japan

Opening Address

Koterayama, W, Professor, ISOPE President, Kyushu Univ., Kasuga, Japan

What's Really Happening with Canada's Arctic Sea Ice?

Bancroft, D, Director, Canadian Ice Service, Environment Canada, Canada

Underwater Autonomous Sensing Technologies at the Office of Naval Research

Herr, F L, Department Head, Office of Naval Research, USA

Beyond Easy Oil – What Lies Ahead for Energy?

Kapusta, S, Chief Scientist, Shell Global Solutions International, The Netherlands

Development of the Far East and Zabaikalye of Russia Till 2013

Levdanskyi, A Y, Chairman, Oil & Gas Association of Far East, Russia

**The Second (2008) ISOPE
Strain-Based Design Symposium
Vancouver, Canada, July 6–11**

MONDAY 13:00

Plenary Presentation I (V.2)

Monday July 7 13:00 Jr Ballroom C
Strain-based Design: 2007 Review
Lillig, D B, ExxonMobil Development Co, USA
Introduction by Wang, Y-Y, Center for Reliable Energy Systems, USA

5. SBD I: Materials (V. 4)

Monday July 7 14:00 Jr Ballroom C

Chair: Lillig, D B, ExxonMobil Development Co, USA
Co-Chair: Mannucci, G, Centro Sviluppo Materiali, Italy

Introductory Remarks

Y-Y Wang, CRES
D B Lillig, ExxonMobil Development
Tsuru, E, Nippon Steel

Mechanical and Metallurgical Properties of Grade X80 High Strain Linepipe Produced by Heat Treatment Online Process

Ishikawa, N, Okatsu, M, Endo, S, Muraoka, R, Kondo, J, JFE Steel, Japan

Development of High Strength and High Deformable Linepipe Steels for Strain Based Design Application

Okaguchi, S, Nakamura, H, Hamada, M, Shitamoto, H, Takahashi, N, Yamamoto, A, Nagase, M, Takeuchi, I, Sumitomo Metal Industries, Japan

Development of X80/X100 Linepipe Steels with High Strain Aging Resistance

Yoo, J Y, Seo, D H, Ahn, S S, Kang, K B, POSCO, Korea

Concepts of Grade X100 for High Toughness and Strain Based Design Application

Schwinn, V, Fluess, P, Dillinger Hüttenwerke; Liessem, A, Schroeder, J, Europipe GmbH, Germany

Thermal and Microstructure Simulation of Girth Welds in High-strength Pipelines

Chen, Y S, Wang, Y Y, CRES, USA; Gianetto, J, CANMET, Canada

15. SBD II: Tensile Strain Capacity 1 (V. 4)

Monday July 7 16:20 Jr Ballroom C

Chair: Tsuru, E, Nippon Steel Co, Japan
Co-Chair: Ishikawa, N, JFE Steel, Japan

Preliminary Analysis of Full-scale Tensile Strain Tests with Internal Pressure

Wang, Y Y, Liu, M, CRES, USA; Stephens, M, Horsley, D, BP, Canada

Girth Welds for Strain-based Design Pipelines

Fairchild, D P, ExxonMobil Upstream Research; Crawford, M D, ExxonMobil Development; Cheng, W, Ford, S J, ExxonMobil Upstream Research; Sleigh, J, Lillig, D B, ExxonMobil Development, USA

Advanced Tensile Behaviour Evaluation of Girth Welds

Fonzo, A, Mannucci, G, Centro Sviluppo Materiali, Italy; Di Vito, L, Richard, G, TenarisTamsa R&D, Mexico

Large Scale Tests of Strain Capacity of Pipe Sections with Circumferential Defects Subjected to Installation Induced Plastic Strain History

Nyhus, B, Østby, E, SINTEF Materials and Chemistry; Zhang, Z L, NTNU; Røstadsand, P A, StatoilHydro; Wærø, A, Technip Norge, Norway

Strain Capacity of SENT Specimens – Influence of Weld Metal Mismatch and Ductile Tearing Resistance

Østby, E, SINTEF Materials and Chemistry; Hauge, M, Levold, E, Sandvik, A, StatoilHydro; Nyhus, B, SINTEF Materials and Chemistry; Thaulow, C, NTNU, Norway

Fracture Control of Offshore Pipelines JIP: Use of ABAQUS/Explicit to Simulate Ductile Tearing in Pipes with Defects Loaded Beyond Yielding

Sandvik, A, StatoilHydro ASA; Østby, E, SINTEF Materials and Chemistry; Thaulow, C, NTNU, Norway

24. SBD III: Tensile Strain Capacity 2 (V. 4)

Tuesday July 8 08:00 Jr Ballroom C

Chair: Østby, E, SINTEF Materials and Chemistry, Norway

Co-Chair: Igi, S, JFE Steel, Japan

Effect of Crack Geometry and Tensile Properties on Tensile Strain Limit of X80 Linepipe

Igi, S, Sadasue, T, Kubo, T, Ishikawa, N, JFE Steel; Suzuki, N, JFE R&D, Japan

Testing Methodology to Characterize the Tensile Strain Capacity of a Welded Pipeline

Gioielli, P C, Cheng, W, Minnaar, K, Fairchild, D P, ExxonMobil Upstream Research, USA

Generalized Strain Capacity Equation to Predict the Strain Capacity Performance of a Welded Pipeline

Minnaar, K, Kibey, S A, Issa, J A, Pakal, R, Gioielli, P C, ExxonMobil Upstream Research, USA

Tensile Strain Limit of SMAW Girth Welds on X70 Pipe: Camisea Pipeline

Hines, J R, C-FER Technologies, Canada; Otegui, J L, Fazzini, P, Gie, Argentina; Codega, H A, TGP, Peru

Strain Capacity Analysis for Strain-based Design

Gao, H, Yu, Z F, CPPE, China

Strain Limits Prediction of X80 High-Strain Line Pipes

Chen, H Y, Ji, L K, Gong, S T, CNPC Tubular Goods Research Center, China

34. SBD IV: Compressive Strain Capacity & Inspection (V. 4)

Tuesday July 8 10:30 Jr Ballroom C

Chair: Suzuki, N, Osaka Univ/JFE R&D, Japan

Co-Chair: Liu, M, Center for Reliable Energy Systems, USA

Numerical Simulation of Buckling Resistance for UOE Line Pipes with Orthogonal Anisotropic Hardening Behavior

Tsuru, E, Nippon Steel; Yoshida, K, Yamagata Univ; Shirakami, S, Kuwabara, T, Tokyo Univ of Agriculture and Technology, Japan

Correlative Hardening Parameters to Strain Capacity of High Strength Line Pipes

Suzuki, N, Osaka Univ/JFE R&D; Igi, S, Kondo, J, Muraoka, R, JFE Steel, Japan

Compressive Strain Limits for Thick-walled Linepipe

DeGeer, D, Timms, C, C-FER Technologies, Canada

Evaluation of Influence Factors of Compressive Buckling by FE

Analysis

Shitamoto, H, Makino, H, Okaguchi, S, Hamada, M, Takahashi, N, Yamamoto, A, Takeuchi, I, Sumitomo Metal Industries; Fujita, S, Sumitomo Metal Pipeline and Piping, Japan

New UST Inspection Procedure for Heavy Wall SAW Pipe

Nagase, M, Hirose, Y, Horikiri, T, Yamano, M, Sumitomo Metal Industries, Japan

Matrix Phased Array AUT Technology for Pipeline Girthweld Inspection

Wassink, C, Applus RTD, The Netherlands; Lozev, M G, Eddison Welding Institute; USA; Portzgen, N, van der Ent, J, Applus RTD, The Netherlands; Atkins, G J, ExxonMobil Development Company, USA

44. SBD V: Testing & Evaluation (V. 4)

Tuesday July 8 14:00 Jr Ballroom C

Chair: Fairchild, D P, ExxonMobil Upstream Research Co, USA

Co-Chair: Yoo, J-Y, POSCO, Korea

Anisotropic Behavior of X100 Pipeline Steel

Treinen, J M, McColskey, J D, Luecke, W E, National Inst of Science and Tech; Wang, Y Y, Center for Reliable Energy Systems, USA

Evaluation of Material Response Subjected to High Plastic Deformation When Forged into Saipem Submarine Repairing System

Mannucci, G, Malatesta, G, CSM; Brandi, R, Saipem-Sonsub; Spinelli, C M, ENI G&P, Italy

Effect of Embedded Defects in Pipelines Subjected to Plastic Strains during Operation

Olso, E, SINTEF Materials and Chemistry; Berg, E, Holthe, K, NTNU; Nyhus, B, SINTEF Materials and Chemistry; Skallerud, B, Thaulow, C, NTNU; Østby, E, SINTEF Materials and Chemistry, Norway

The Effect of Prestrain History on Ductile Crack Resistance Curves of Pipeline Steels

Zhang, Z L, NTNU, Norway

Constraint Evaluation and Effects on J-R Resistance Curves for Pipes under Combined Load Conditions

Ernst, H, TENARIS; Cravero, S, SIDERCA; Bravo, R, TENARIS, Argentina

Design Criteria for X80 Pipe Welding: Process and Strength Effects on Weld Performance in Wide Plate Tests

Dallam, C, Lincoln Electric, Spain

Development of High Strength SMAW Consumables for SBD Applications

Kapoor, A, Ogborn, J, Lincoln Electric, USA

54. SBD VI: SBD in Service Environment (V. 4)

Tuesday July 8 16:20 Jr Ballroom C

Chair: Wang, Y-Y, Center for Reliable Energy Systems, USA

Co-Chair: Jin, H W, ExxonMobil Research and Engineering Co, USA

Response of Pipelines under Seismic Conditions

Liu, M, Wang, Y Y, CRES, USA; Yu, Z F, CNPC, China

Deformation Behavior and Limit State of High-Grade Induction Bend Pipes Subjected to Large Ground Deformation

Mitsuya, M, Hashimoto, Y, Sakanoue, T, Yatabe, H, Tokyo Gas Co, Japan

Effects of Linepipe and Girth Weld Properties on Strain Capacity of Pipelines

Wang, Y Y, Liu, M, Chen, Y S, CRES, USA; Horsley, D, BP, Canada

Determining the Demanded Strain at Fault Crossing in Strain-based Design

Yu, Z F, Gao, H, CPPE, China

Investigating the Effects of Mining Subsidence and Collapse on Buried Pipeline Using Finite Element Modeling

Wang, X L, Shuai, J, Wang, H B, China Univ of Petroleum, China

Strain-based Pipelines: A Technology Overview

Biery, N E, ExxonMobil Upstream Research; Kan, W C, Zhang, M M, Lillig, D B, ExxonMobil Development; Barbas, S T, Macia, M L, ExxonMobil Upstream Research, USA

62. SBD VII: SBD Panel Discussion

Wednesday July 9 08:20 Jr Ballroom C

Moderator: Wang, Y-Y, Center for Reliable Energy Systems, USA

Panel Discussion

The State-of-the-Art in SBD and Gap Analysis

Moderated by Yong-Yi Wang

FRIDAY July 11

Vancouver Tours: Click on www.isopec.org or www.tourismvancouver.com

Find further details on www.isopec.org .



GENERAL INFORMATION

Further details are posted on www.isopec.org .

PLACE AND DATE: Vancouver, July 6–11, 2008

All ISOPE-2008 Conference's technical events, tea breaks and registration will take place at:

Sheraton Vancouver Wall Centre Hotel*

1088 Burrard Street

Vancouver, BC, Canada V6Z 2R9

Fax: +1-604-893-7123; www.sheratonvancouver.com

* 4-diamond hotel. Use the **WORD** file of this hotel booking at ISOPE room rates.

PARKING

The Sheraton has over 350 secured underground public parking stalls and charges \$25.99/night for booked hotel guests and \$36.00/night for non-hotel guests, taxes included.

LANGUAGE

The language for the conference is English. No translation service will be arranged.

AIR TRAVEL

Many major airlines provide direct flights to Vancouver International Airport (YVR) from centres in Asia, Europe, and North America – see www.yvr.com. YVR is located very close to the city center and can be easily reached by taxi or bus.

AIRPORT TO HOTEL

Vancouver International Airport

After the Immigration and Customs Control, follow the Exit signs. Outside the airport you will find taxi and bus stops.

Taxi

A taxi ride is the most convenient when you carry luggage. Taxis are readily available outside both the Domestic and International terminals and charge a metered rate based on time and distance traveled. The approximate fare to downtown Vancouver is \$23-\$26 (inclusive of all taxes) under normal conditions.

Airporter

The Airporter provides bus service to major hotel destinations in downtown Vancouver. The Airporter bus is located on the International and Domestic Arrivals level curb. No reservations required with departure times as follows every 20 minutes from 9:00 to 21:30. Tickets may be purchased at the Airporter counter, their pickup locations or on the motor coach. Fares are \$13.50 one-way or \$21.00 round trip. Further information on service, schedules and fares may be obtained from the Airporter counter located on the International and Domestic Arrivals levels, the website, www.yvrairporter.com, or by calling 1-800-668-3141.

Regular bus service

It is less convenient to take a regular city bus from the airport to the Sheraton Wall Centre Hotel. If you wish to do so, take No. 424 from the airport (domestic arrivals level) to *Airport Station*, and then transfer to No. 98, *Burrard Station (B-Line)*. See <http://translink.bc.ca>

CURRENCY EXCHANGE

Cash dispensers (ATMs) that accept all major credit/debit cards can be found at several locations in the airport, and at banks and retail areas throughout the city. Currency exchange services will charge either a flat fee for small denominations or a percentage of the amount exchanged; usually the exchange rate is more favourable at the banks. Major credit cards are widely accepted at hotels, department stores and restaurants

TAX

Most purchases in British Columbia are subject to sales tax totalling 12% of the purchase price. The provincial sales tax (PST) of 7% applies to most retail purchases. (Some items, including groceries, restaurant meals, children's clothing and books, are PST exempt.) The federal Goods and Services Tax (GST) of 5% is applicable to most purchased goods and services, but rebates on accommodations and purchases taken out of the country can be claimed by non-residents of Canada. Some restrictions apply. For more information call 1-800-66-VISIT from within Canada; outside Canada call 902-432-5608.

ACCOMODATION (Find the reservation form in this program or download the **WORD** file of it from www.iso-pe.org > **conference** > **ISOPE-2008** > **hotel reservation form**.)

*Reservations should be made **absolutely before June 4, 2008.***

Sheraton Vancouver Wall Centre Hotel is the official venue for the Conference. Rooms are reserved at the ISOPE group rates for the

Conference. You must use the Reservation Form for ISOPE group discount rate and send by fax or e-mail to the Hotel. For some **other hotels** nearby, click on www.iso-pe.org > **Conference** > **iso-pe-2008 Vancouver**, and download the Reservation Form of **other hotel choices**.

CITY TRANSPORTATION

Within the city it is best to take public transportation. *Translink* buses, *Skytrain* and *Seabus* run regularly and will take you almost everywhere in and around the city. Regular fares are:

1 Zone \$2.50 (all travel within the city of Vancouver)
2 Zone \$3.75
3 Zone \$5.00

ELECTRICITY AND ADAPTER

Canadian appliances operate on 110 volts (60 Hz), which is identical to the U.S. voltage. A universal adaptor is required for overseas electrical devices.

TIPPING

It is customary to tip between 15% and 20% at bars and restaurants in British Columbia. Tips are also given to tour guides, and for taxi service, spa treatments and haircuts.

HOURS OF OPERATION

- * Offices in Vancouver are usually open from 8:00 am to 5:00 pm
- * Shops are usually open from 10:00 am to 9:00 pm.
- * Pharmacies keep similar hours to offices, with a few open 24 hours.
- * Banks are generally open 10:00 am to 4:00 pm Monday to Friday, with some banks open on Saturday

SPOUSE PROGRAM: 1/2-Day Tour; Tuesday Afternoon, July 8

Update will be posted shortly. Sponsored by ISOPE, and tickets will be issued to the spouses with ISOPE badge only, free of charge. It is first-come-first-served basis. E-mail advance reservations (Subject "**Spouse Program**") to iso-pe-2@iso-pe.org.

WHAT TO SEE IN THE CITY

www.hellobc.com; www.tourismvancouver.com

Surrounded by water on three sides and nestled alongside the Coast Mountain Range, Vancouver is home to spectacular natural scenery and a bustling metropolitan core. It boasts one of the mildest climates in Canada, while the surrounding snow-covered slopes are the venues for winter sports and breathtaking views of the city twinkling below. The Greater Vancouver region is home to more than two million people, making it the third largest metropolitan area in Canada. The city has been chosen to host the 2010 Winter Olympic and Paralympic Games, and maintains a permanent position on the Economist's "Most Livable Cities" list. Highlights of the city include:

Stanley Park

It is the largest city-owned park in Canada and the third largest in North America. The park attracts an estimated eight million visitors every year. An 8.8 km seawall path circles the park. Much of the park remains forested with an estimated half million trees that can be as tall as 76 metres and hundreds of years old. The park is also home to the internationally-acclaimed Vancouver Aquarium Marine Science Centre, one of North America's five largest aquariums.

Granville Island

Once an industrial manufacturing area, Granville Island is now a major tourist destination, providing amenities such as a public market, a large marina, a hotel, the Emily Carr Institute of Art and Design, various theatres including one run by The Arts Club Theatre, and a number of shopping areas clustered around the one remaining industrial outpost. It also boasts a healthy community of craft studios.

Robson Street

Robson is Vancouver's most famous shopping street set in the heart of downtown Vancouver; On it you'll find a commercial mecca which includes premier fashions stores, fine dining, services and all the amenities a tourist or local might need. At night, the streets come alive

with colorful buskers and performers. Visitors enjoy delicious drinks and fine foods at some of the city's most celebrated restaurants. The street is recognized both on a worldwide level as well as locally as Vancouver's favorite shopping destination.

Capilano Suspension Bridge

Just outside of downtown Vancouver, Capilano Suspension Bridge takes you to the natural splendor of rainforest trails through magnificent evergreens from the unique perspective of this swaying 136 meter long suspension bridge with spectacular views of the canyons 70 meters below.

Vancouver Art Gallery

In the heart of downtown, the Art Gallery features the works of Vancouver's internationally renowned artists and significant historical artists, including the most extensive collection of the work of Canada's renowned Emily Carr. Permanent holdings number more than 9,000 artworks, making it one of the most valuable collections in Canada.

Grouse Mountain

It is well worth taking a ride up to the top on the 100-passenger tram, appreciating breathtaking panoramic vistas of the Lower Mainland en route.

UBC Museum of Anthropology

Home to one of the world's most magnificent collections of First Nations totem poles, carvings and other artifacts, the museum is housed in an award-winning glass-and-concrete building designed by the world-renowned architect, Arthur Erickson, based on traditional Northwest Coast post-and-beam structures.

Gastown

Vancouver began here - stroll down charming cobbled streets, explore heritage buildings and mews, visit unique stores and dine in restaurants - from quirky to gourmet.

Chinatown

Vancouver is home to one of the largest Chinese communities in North America. Its downtown Chinatown (the other major centre is in Richmond) is worth a visit for the historic buildings (including the world's narrowest), exotic markets and herbal apothecaries, not to mention bargains on imported goods, particularly kitchen supplies.

SIGHT SEEING AND TOUR PROGRAM

The program will be posted on www.isopec.org > ISOPE-2008.

ADVANCE CONFERENCE REGISTRATION BY MAIL OR FAX (use the Registration Form)

Remember to send via **airmail or fax** the Advance Registration (*and Invoice*) Form in this Program (It can also be downloaded from www.isopec.org)

DEADLINE: Presenting Authors: March 24.

Non-Authors, non-presenting authors and co-authors: May 31.

In case one charges to a credit card via Fax, the **card number** should be **typed in bold face or written clearly** to be readable in the transmitted Fax copy. The ISOPE Fax number is **1-650-254-2038 USA**.

Forms received **after May 31** will not be processed and will be returned to the senders for on-site registration with a **surcharge of US\$100**. Registrants will not be separately invoiced.

REGISTRATION CANCELLATIONS

Requests in writing for cancellation of registration received by **June 4, 2008** only will be granted a refund minus US\$70 handling fee. **No refund** will be granted to **one "presenting" author** per paper, if the paper is already included in the proceedings. The registered **presenting author will receive** a proceedings CD-ROM.

REGISTRATION BADGE

Conference registration badges are required for admittance to all the conference activities, including the reception and banquet.

Advance Registration Fees: Deadline for the *presenting authors* is **March 24.**

US\$100 surcharge applies after May 31 and for on-site registration fees.

Category	Advance Registration Fee (US\$)*	
	Before May 31	1 day
ISOPE member	600	500
Author, Co-author, Session Chair, Co-Chair (non-ISOPE member)	640	540
Member of Coop. organizations	640	540
Non-member of ISOPE	670	570
New ISOPE member application (incl. 2005 membership fee and one year journal issues)	690	590
ISOPE Membership fee, 2008	90	90
ISOPE Member Student with Full-time 2008 ID	390	390
Non-member Student with Full-time 2008 ID	430	430
New ISOPE student member application (incl. 2008 membership fee and one year journal issues)	440	440
Additional /Separate Banquet Ticket	95	95

* The **full** Conference registration fee (2 days or more) **includes** the conference reception, a conference banquet, tea breaks, and a *CD-ROM* of the 3,600-pp. (est.) **4-volume** conference proceedings.

* The **1-day** registration fee **includes** *CD-ROM* of the **4-volume** conference proceedings, tea breaks.

ON-SITE CONFERENCE REGISTRATION: Foyer

Participants who miss the advance registration (before **May 31**) may register on site at the Conference Registration Desk, but there is US\$100 surcharge. The registration desk will be open during the following hours:

Sunday, July 6	15:00-18:00	Wednesday, July 9	08:00-15:00
Monday, July 7	07:30 -16:00	Thursday, July 10	08:00-13:00
Tuesday, July 8	08:00 -16:00		

ISOPE-2008 CONFERENCE PROCEEDINGS

A **4-volume conference proceedings on CD-ROM** (ISBN 978-1-880653-70-8; ISBN 1-880653-70-2; ISSN 1098-6189) **is included in all conference registration fees. For additional or separate orders, download the publications order form from www.isopec.org for post-conference order:**

A **4-volume Conference Proceedings** in CD-ROM (3,600 pp. est.)
Mail, E-mail or Fax order \$270 (ISOPE Member \$230)

Mail or Fax Order from ISOPE, 495 North Whisman Road, Suite 300, Mountain View, California 94043-5711, USA: Fax **1-650-254-2038**. Advance payment is required. MasterCard, VISA, or AMEX; international money order or U.S. bank checks in US Dollars *payable to ISOPE* will be accepted. Shipping and handling charges will be added (Download the Publication Order Information from www.isopec.org).

CONFERENCE HEADQUARTERS Parksville

BOARD Chartroom

CONFERENCE RECEPTION Pavilion Ballroom +Foyer
Sunday

ANNUAL CONFERENCE BANQUET Grand Ballroom
Wednesday

AUTHOR PRACTICE ROOM Individual session rooms
An overhead projector, power-point or LCD projector and screen are available during 08:00-17:00 (Monday - Thursday).

CHAIR/CO-CHAIR BRIEFING Port Hardy
The session chairs and co-chairs will be briefed at 07:30 each morning for session briefings on the day of presentation. The manner of each session conduct and information on authors and presentation will be discussed.

Presenting authors go directly to their session room 30 minutes before the session.

INFORMATION - MESSAGE CENTER.

The information and message center is located in the registration area. One may contact ISOPE Conference Registration Desk.

INTERNATIONAL PARTICIPANTS AND VISA APPLICATION

International authors, participants or attendees who need help (except financial) can contact: ISOPE-2008 Secretariat, 495 North Whisman Road, Suite 300, Mountain View, California 94043-5711 USA. Fax: +1-650-254-2038; email: meetings@isope.org.

Entry Visa. Some authors may be required to apply for an entry visa.

Visa application form. Get it from the Consulate Office of Canada in your country or click on <http://www.cic.gc.ca/english/visit/visas.asp>. If the Consulate requires you to submit an official letter of invitation, please contact ISOPE, USA (email: meetings@isope.org; Fax: +1-650-254-2038).

QUESTIONS ABOUT THE CONFERENCE ?

Please e-mail, call or fax before **June 23** to: ISOPE, USA (email: meetings@isope.org; Tel: +1-650-254-1871; Fax: +1-650-254-2038), if you have any questions about the conference. Also, click on <http://www.isope.org>.

TAX DEDUCTIBILITY

Expenses of attending professional meetings such as the registration fee and cost of technical publications may be tax-deductible as ordinary expenses for the U.S. citizens and some countries.

CLIMATE

The climate of Vancouver is a moderate oceanic climate tempered by the warm Japan Current. The city is also sheltered by the mountains of Vancouver Island, to the west. These influences contribute to making Vancouver the warmest of Canada's major cities. During June, July and August, the average daily temperature is around 25 degrees Celsius.

AUTHOR INDEX is posted on www.isope.org.



ISOPE Publication Order Information

(Download from www.isope.org for further information.)

International Journal of Offshore and Polar Engineers - Quarterly (March, June, September, December) (ISSN 1053-5381).

Proceedings of the 1st (1990) Pacific/Asia Offshore Mechanics Symposium (PACOMS '90), Seoul, Korea, 24-28 June 1990. For a set of 3 volumes, (ISBN 0-9626104-0-2; LCCN 90-082039): approx. 1260 pp., US\$150 per set.

Proceedings of Special Offshore Symposium China (SOSC-94) /the 3rd (1994) Pacific/Asia Offshore Mechanics Symposium (PACOMS-94), Beijing, China (ISBN 1-880653-15-X); 797 pp.

Proceedings of the 4th (1996) ISOPE Pacific/Asia Offshore Mechanics Symposium (PACOMS-96), Pusan, Korea (ISBN 1-880653-27-3); 325 pp.

Proceedings of the 5th (2002) ISOPE Pacific/Asia Offshore Mechanics Symposium (ISOPE PACOMS-2002), Daejeon, Korea (ISBN 1-880653-59-1); 252 pp.

Proceedings of the 6th (2004) ISOPE Pacific/Asia Offshore Mechanics Symposium (ISOPE PACOMS-2004), Vladivostok, Russia (ISBN 1-880653-63-X); 299 pp.

Proceedings of the 7th (2006) ISOPE Pacific/Asia Offshore Mechanics Symposium (ISOPE PACOMS-2006), Dalian, China (ISBN 1-880653-67-2); 357 pp.

Proceedings of the 1st (1990) European Offshore Mechanics Symposium (EUROMS-90), Trondheim, Norway, (ISBN 0-9626104-4-5; LCCN 90-084691); approx. 590 pp.

Proceedings of the 2nd (1999) ISOPE European Offshore Mechanics Symposium (EUROMS-99): s (of Synopsis in Russian and English), Moscow, Russia (ISBN 1-880653-44-3); approx. 126 pp

Proceedings of the 1st (1995) ISOPE Ocean Mining Symposium, Tsukuba, Japan, November 21-22, 1995. A single volume (ISBN 1-880653-21-4, LCCN 95-77708): 238 pp.

Proceedings of the 2nd (1997) ISOPE Ocean Mining Symposium, Seoul, Korea, (ISBN 1-880653-33-8): 201 pp.

Proceedings of the 3rd (1999) ISOPE Ocean Mining Symposium, Goa, India, (ISBN 1-880653-45-1): 298 pp.

Proceedings of the 4th (2001) ISOPE Ocean Mining Symposium, Szczecin, Poland (ISBN 1-880653-56-7): 208 pp.

Proceedings of the 5th (2003) ISOPE Ocean Mining Symposium, Tsukuba, Japa, (ISBN 1-880653-61-3): 256 pp.

Proceedings of the 6th (2005) ISOPE Ocean Mining Symposium, Changsha, Hunan, China (ISBN 1-880653-65-6): 276 pp.

Proceedings of the 7th (2007) ISOPE Ocean Mining Symposium, Lisbon, Portugal (ISBN 978-1-880653-69-2; ISBN 1-880653-69-9): 219 pp.

First (2003) ISOPE Symposium on High-Performance Materials in Offshore Industry (HMOI), ISOPE HPM-2003, Honolulu, Hawaii, USA (in ISBN 1 880653 60-5; ISSN 1098-6189 (Set): 2,912 pp.

Second (2004) ISOPE High-Performance Materials Symposium: Friction Stir Welding, ISOPE HPM-2004, Toulon, France (in ISBN 1 880653 62-1; ISSN 1098-6189 (Set): 3,160 pp.

Third (2005) ISOPE High-Performance Materials Symposium: Advanced Welding, ISOPE HPM-2005, Seoul, Korea (in ISBN 1 880653 64-8; ISSN 1098-6189: 3,110 pp.

Fourth (2006) ISOPE High-Performance Materials Symposium, ISOPE HPM-2006, San Francisco, California, USA (in ISBN 1-880653-66-4; ISSN 1098-6189: 3,000 pp. est.

Fifth (2007) ISOPE High-Performance Materials Symposium, ISOPE HPM-2007,), Lisbon, Portugal, Published in (ISBN 978-1-880653-68-5; ISBN 1-880653-68-5; ISSN 1098-6189: 3,904 pp.

First (2007) ISOPE HPM Nanomaterials for Structural Applications Symposium, ISOPE NANOS-2007, Lisbon, Portugal (in ISBN 978-1-880653-68-5; ISSN 1098-6189: 3,904 pp.

First (2005) ISOPE Advanced Natural Gas Transport (ANGT) Symposium, ISOPE ANGT-2005, Seoul, Korea; (in ISBN 1 880653 64-8; ISSN 1098-6189: 3,110 pp.

Reprints of the 1st (1996) International Deep-Ocean Technology Symposium and Workshop, Los Angeles, in December 1996 issue, Vol. 6, No. 4, *International Journal of Offshore and Polar Engineering* (ISSN 1053-5381).

First (2007) ISOPE Strain-Based Design Symposium, ISOPE SBD-2007, Lisbon, Portugal (in ISBN 978-1-880653-68-5; ISSN 1098-6189: 3,904 pp

Proceedings of the 1st (1991) International Offshore and Polar Engineering Conference (ISOPE-91), Edinburgh, U.K., 11-16 August 1991 (ISBN 0-9626104-5-3; LCCN 91-071635): approx. 2190 pp., \$320 (US\$240; member).

Proceedings of the 2nd (1992) International Offshore and Polar Engineering Conference (ISOPE-92), San Francisco (ISBN 1-880653-00-1; LCCN 91-78280): 2,899 pp.

The Proceedings of the 3rd (1993) International Offshore and Polar Engineering Conference (ISOPE-93), Singapore (ISBN 1-880653-05-2; LCCN 92-76219): 2,965 pp.

Proceedings of the 4th (1994) International Offshore and Polar Engineering Conference (ISOPE-94), Osaka, Japan (ISBN 1-880653-10-9; LCCN 93-80555): 2,589 pp.

Proceedings of the 5th (1995) International Offshore and Polar Engineering Conference (ISOPE-95), The Hague. (ISBN 1-880653-16-8; LCCN 94-73796), 2,543 pp.

Proceedings of the 6th (1996) International Offshore and Polar Engineering Conference (ISOPE-96), Los Angeles (ISBN 1-880653-22-2): 2,326 pp.

Proceedings of the 7th (1997) International Offshore and Polar Engineering Conference (ISOPE-97), Honolulu (ISBN 1-880653-28-1): 3,556 pp.

Proceedings of the 8th (1998) International Offshore and Polar Engineering Conference (ISOPE-98), Montréal (ISBN 1-880653-34-6; ISSN 1098-6189): 2,577 pp.

Proceedings of the 9th (1999) International Offshore and Polar Engineering Conference (ISOPE-99), Brest (ISBN 1-880653-39-7; ISSN 1098-6189): 3,061 pp.

Proceedings of the 10th (2000) International Offshore and Polar Engineering Conference (ISOPE-2000), Seattle (ISBN 1-880653-46-X; ISSN 1098-6189): 2,689 pp.

Proceedings of the 11th (2001) International Offshore and Polar Engineering Conference (ISOPE-2001), Stavanger, Norway (ISBN 1-880653-51-6; ISSN 1098-6189): 3,039 pp.

Proceedings of the 12th (2002) International Offshore and Polar Engineering Conference (ISOPE-2002), Kitakyushu, Japa, (ISBN 1-880653-58-3; ISSN 1098-6189): 3,304 pp.

Proceedings of the 13th (2003) International Offshore and Polar Engineering Conference (ISOPE-2003), Honolulu, Hawaii, USA (ISBN 1-880653-60-5; ISSN 1098-6189): 2,912 pp.

Proceedings of the 14th (2004) International Offshore and Polar Engineering Conference (ISOPE-2004), Toulon, France (ISBN 1-880653-62-1; ISSN 1098-6189: 3,167 pp.

Proceedings of the 15th (2005) International Offshore and Polar Engineering Conference (ISOPE-2005), Seoul, Korea (ISBN 1-880653-64-8; ISSN 1098-6189: 3,116 pp.

Proceedings of the 16th (2006) International Offshore and Polar Engineering Conference (ISOPE-2006), San Francisco, California, USA (ISBN 1-880653-66-4; ISSN 1098-6189: 2,704 pp.

Proceedings of the 17th (2007) International Offshore and Polar Engineering Conference (ISOPE-2007), Lisbon, Portugal (ISBN 978-1-880653-68-5; ISBN 1-880653-68-0; ISSN 1098-6189: 3,904 pp.

Proceedings of the 18th (2008) International Offshore and Polar Engineering Conference (ISOPE-2008), Vancouver, BC, Canada, July 6-11, 2008. For 4-volume set *CD-Rom* (ISBN 978-1-880653-70-8; ~~ISSN 1098-6189~~: 3,600 pp. est.

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