

The 25th ISOPE Conference Anniversary

June 21–27, Kona, Hawaii Big Island, USA

The Twenty-fifth (2015) International
**Ocean and Polar
Engineering Conference**

Including additional ISOPE symposia:

- 1st **Materials Reliability & Refinery**
- 3rd **High Manganese Steel**
- 4th **Tsunami & Safety**
- 4th **Asset Integrity**
- 6th **Arctic Science & Technology**
- 5th **Arctic Materials**
- 6th **Renewable Energy & Environment**
- 7th **Sloshing Dynamics & Design**
- 7th **Frontier Energy Tech**
- 9th **Strain-Based Design**
- 11th **Ocean Mining & Gas Hydrates**
- 13th **High-Performance Materials**

ISOPE-2015

Kona, Hawaii, USA, June 21–26

Technical Program

(Updated **February 25, 2015**)

Refereed papers from 53 countries in 188 technical sessions
9 plenary and keynote presentations

Full Program with Paper List, General Information, Reservations,
Publications and Updates on

<http://www.isopec.org/publications/publications.htm>

ISOPE-2015 Conference proceedings

ISBN 978-1-880653-89-0; ISSN 1098-6189

Forms for Advance Registration and Venue Hotel:

<http://www.isopec.org/conferences/conferences.htm>



ISOPE, P.O. Box 189
Cupertino, CA 95015-0189, USA
Fax: +1-650-254-2038

meetings@isopec.org; www.isopec.org

GENERAL INFORMATION

Further details are to be updated on www.isopec.org .



Welcome to Hawaii
ISOPE-2015 Kona, Big Island



The Twenty-fifth (2015) International Ocean and Polar Engineering Conference Hilton Waikoloa, Hawaii, June 21–26, 2015

The number at the end of the session title indicates the tentative number of the proceedings volume. Only the changes in titles or authors the ISOPE-2015 Technical Program Committee (TPC) received in writing before February 25, 2015 are reflected in this program. Final corrections will be updated in the Conference Proceedings of peer-reviewed papers and the Final Program. Conference proceedings (ISBN 978-1-880653-89-0; ISSN 1098-6189) will be available as a set of 4 volumes (6,100 pp. est.) from ISOPE during and after the Conference.

The 11th Ocean Mining and Gas Hydrates (OMS-2015 or OMSGH-2015) Symposium Proceedings is part of ISOPE-2015 Conference proceedings.

**All ISOPE publications are indexed by Engineering Index (EI),
SCOPUS and others.**

**FULL CONFERENCE PROGRAM WITH SESSION / PAPER
LIST: Updated at**

**<http://www.isopec.org/conferences/conferences.htm>
<http://www.isopec.org/publications/publications.htm>**

SUNDAY, June 21

Welcome Reception

17:00

Kona Pool



Hilton Waikoloa Village hotel

PLACE AND DATE: Waikoloa/Kona, Hawaii, USA
June 21–26, 2015

All ISOPE-2015 Conference's technical events, reception, annual banquet, tea breaks and registration will take place at:

Hilton Waikoloa Village
69-425 Waikoloa Beach Drive
Waikoloa, Hawaii 96738, USA
Phone +1-808-886-1234

HOTEL RESERVATIONS

To get the lower-rate rooms, book early!

Download the Reservation Form from www.isopec.org >

Hotel. Also available by email from isopec-2@isopec.org

The presenting authors are provided the Form when submitting the manuscript or review.



LANGUAGE

The language for the conference is English. No translation services will be available.

AIR TRANSPORTATION

Domestic

Airlines serving **Kona from the U.S. mainland and Canada:**

Alaska Airlines, American Airlines, Delta Airlines, Hawaiian Airlines, United Airlines and US Airways. Service from Canada is via and WestJet (seasonal)

Interisland flight service is provided by Hawaiian Airlines, Go Airlines, Mokulele, and Pacific Wings. Connecting flights from Honolulu are also possible.

Convenient **interisland** charter services are offered by Hawaiian Airlines, Mokulele Air, Pacific Wings, Safari Helicopters, Blue Hawaiian Helicopters and Sunshine Helicopters.

International

All international flights clear Immigration and Customs Control at Honolulu airport. If you are overnighing in Honolulu, outside the baggage claim area you will find taxis, bus stops and rental car shuttles. If you are continuing on to Hawaii Island, follow the signs to the Interisland (Hawaiian) or commuter terminal (GO Airlines, Mokulele, Island Air, and other) to catch a connecting flight to Kona.

Visitor Information Counters are located throughout Honolulu airport. For the most current flight service contact your travel professional.



GROUND TRANSPORTATION

Ground transportation services from the Kona International Airport to hotels are provided by:

Pre-arranged Limousine and Shuttle transportation service:

Shared ride to Hilton Waikoloa Village can reduce individual fare. Be on a lookout in the baggage claim area for conference attendees by recognizing “**ISOPE**” on luggage or carry-on tag.

Arrival service for one passenger will cost approximately \$51.63 with a \$5-\$10 incremental charge per person thereafter up 7 passengers. For 8 passengers up to 11 passengers maximum, will be considered exclusive service at approximately \$152.38 per vehicle.

Departure service for one passenger will cost approximately \$50.13 with a \$5-\$10 incremental charge per person thereafter up 7 passengers. For 8 passengers up to 11 passengers maximum, will be considered exclusive service at approximately \$148.58 per vehicle.

Reservations are recommended and should be booked a minimum of 48 hours in advance.

(1) **Call** a reservation agent at 1-808-242-5777 (toll free in the US: 1-877-242-5777) the [Resort Transportation Desk: 808-886-2825](tel:808-886-2825)

Or (2) **book online** at <http://www.speedishuttle.com/>

- Due to a high volume of shuttle transportation usage, we recommend pre-arranging all your transportation needs in advance.
- A 10% discount will apply for all guest who book and confirm roundtrip transfers. Bookings need to be made at the same time.
- Upon arrival, guest should check-in with a Speedishuttle representative at the Speedishuttle /

Arthur's Limousine counter located in baggage claim area.

- A maximum of 2 pieces of luggage per person. Additional fees may apply for oversized luggage, golf bags surf boards etc...
- A transportation desk is located at the resort, should you need to reconfirm or make additional transportation bookings. Desk is open daily from 8am to 4pm.

RENTAL CAR:

All major rental car companies are available at the airport location. More car rental information will be provided later here.

Rental Car at ISOPE rate

Enterprise Rent-A-Car – Kona Airport location –

Discount off of retail

http://www.enterprise.com/car_rental/deeplinkmap.do?bid=002&cust=L36gp09&referredPage=multiDivOffer

National Car Rental – Hilton Waikoloa Special ISOPE Rates

<https://www.nationalcar.com/index.do?action=resRentalInfo.do&pickUpDropOffDetailForm.pickupStationName=Waikoloa Beach Dr&pickUpDropOffDetailForm.dropoffStationName=Waikoloa Beach Dr&contractId=V0438E>

Taxi:

Service is available in the baggage claim area. Upon your departure of the island, it is recommended to call for a taxi in advance. Hotel concierge can assist with this information at ext 2740 or calling directly to Laura's Taxi (808) 326-5466.

Cost: Approximately \$60 per one-way trip

Shared ride to Hilton Waikoloa Village can reduce individual fare. Be on a lookout in the baggage claim area for conference attendees by recognizing “**ISOPE**” luggage or carry-on tag.

Kona International Airport to Hotel by Rental Car

Distance is 19.5 miles and driving time will be about 29 minutes.

- From Keahole Airport Rd
- Turn left onto HI-19 / Queen Kaahumanu Hwy

- Turn left onto Waikoloa Beach Dr
- Arrive at 69-425 Waikoloa Beach Dr (Hotel entrance on left)

Hotel Parking: The hotel offers self-parking at \$17.00 per day and valet-parking at \$22.00 per day.

SHOPPING

A [The Queen's Marketplace](http://queensmarketplace.net/) is comprised of a variety shops and restaurants covering 116,000 square feet oasis located in the heart of the Waikoloa Beach Resort. Tenants include Island Gourmet Markets, Romano's Macaroni Grill, Sansei Seafood, Food Court, Starbucks, Quicksilver, PacSun and so much more. A wide array of contemporary and cultural events are scheduled throughout the week and varies through the seasons.

Website: <http://queensmarketplace.net/>

[The Kings' Shops](http://www.kingsshops.com) is the premier shopping and dining destination of Hawaii Island. Explore a stylish mix of luxury stores like Louis Vuitton, Tiffany & Co., Coach, Martin & MacArthur, Baron & Leeds, Na Hoku and Maui Divers. Browse through upscale boutiques like Mary Jane's, Hawaii's Gift Basket Boutique and Cinnamon Girl. Visit Genesis Gallery just one of the many exquisite art galleries showing fine art by international and local artists. Enjoy excellent dining at Roy's Waikoloa Bar & Grill, Merriman's Market Café, and The Three Fat Pigs a restaurant and gastropub by Chef Ippy. Website: <http://www.kingsshops.com>

The shopping facility is located within the resort area and a resort trolley is available at approximately \$2 per person, or those that are interested a leisure 10 minute walk will get you there as well.

CURRENCY EXCHANGE

Cash dispensers (ATMs) that accept all major credit/debit cards can be found at several locations in the airport, hotel lobby and retail areas, throughout the area.

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 favorable at the banks.

TAX

All sales transactions are subject to a sales tax of 4.166% (as of 2014) of the purchase price **included in sales price** with no tax rebate.

RESORT CHARGE BENEFITS

A discounted daily resort charge of \$12.50 (normally \$25.00) is assessed per room/suite, per night and includes these benefits:

- Internet Access / WIFI Access
- Playstation 3 access with unlimited movies and games (Limit 2 checked out at any given time.) Please use the box in your designated tower.
- Local, toll-free, and credit card calls (No Access fee)
- Daily Hawaiian Cultural Activities including Hula, Ukulele and Lei Making Lessons
- 20% discount on Lagoon Beach Toys and 10% discount on Ocean Sports Cruises
- Complimentary 15-minute photo session with Sharp Shooter Imaging and souvenir keepsake

INTER-RESORT SHUTTLE SERVICE:

Transportation is available within Waikoloa Beach Resort. Operates daily from 10:00 a.m. - 10:00 p.m. Rates vary: Children under 4 are FREE, children 5-12 are \$2 for Adults. Stops at Kings' Shops, Queens' Market Place and Hilton Waikoloa Village lower lobby.

ELECTRICITY AND ADAPTER

Appliances operate on **115/120 volts, 60 Hz**. A universal adaptor or 2-prong adaptor to fit the U.S. electric outlet.



TIPPING

It is customary to tip for food service, portage, and valet parking. Tips are typically 15% to 20% for food service, \$4.00 for portage per person one way, and \$2.00 for valet parking each time drops off or pick up car.

HOURS OF OFFICE AND BUSINESS OPERATION

-Offices in Hawaii normally are open from 8:00 am to 5:00 pm.

-Shops open from 9:00-10:00 am and close between 9:30 pm to 10:00 pm.

-Banking location: the nearest banking facilities are located in the town of Kamuela (Waimea) and are generally open 8:30 am to 4:00 pm Monday to Friday, with some banks open on Saturday mornings.

-Pharmacies and Medical facilities are located in the town of Kamuela (Waimea) and are open between 8 am and 7 pm.

DINING OPTIONS – at Resort

Big Island Breakfast at Water's Edge

Featuring ala carte and full buffet dining. Open daily.

Waikoloa Coffee Co.

Kona Coffee, espresso drinks, fruit smoothies, acai bowls pastries, savory croissants and quiche. Open daily from 5:30 am - 5 pm in Ocean Tower and 5:30 am - 6 pm in Lagoon Tower.

Kona Pool Bar

Salads, panini and deli sandwiches. Open daily.

Kohala Pool Bar

Wraps, sandwiches and salads. Open daily.

Orchid Market Place

Brick Oven Pizza, made to order sandwiches, assorted poke bowls, and grab 'n go snacks. Open daily.



Lagoon Grill

Burgers, Fries and Mai Tais. Bar and Grill open daily for lunch and dinner.

Boat Landing Cantina

Where Hola meets Aloha, a Hawaiian Cantina. Open daily.

Kirin Chinese Restaurant

Traditional Chinese from Szechuan to Canton. Open Daily for lunch 11 am - 5 pm and regular dining menu 11 am – 10 pm.

Shaka Cones - Big Island Ice Cream

Proudly serving locally made Tropical Dreams Ice Cream. Featuring scoops, shakes and sundaes. Open daily.

Malolo Lounge

Tropical cocktails, light fare and live music. Open daily 5 pm, Sunday at 8 am for football fans. Live Music nightly.

Dona & Toni's Pizza

Traditional and inspired pizzas, pastas, salads and wine on tap. Open daily. Dine in or take out, ext. 1571.



Imari

Sushi, Sashimi and Innovative Rolls, Family Style a la carte, and Teppan yaki. Open Tuesday - Saturday*. Closed Sunday - Monday. Reservations recommended.



Kamuela Provision Company KPC

Spectacular Oceanfront Dining. Open nightly. Reservations recommended. The Blue Lounge open nightly. Top100 Most Romantic Restaurants as voted by OpenTable diners.



Legends of Hawaii Luau - Our Big Island Story

Experience the most popular Luau on Hawaii Island - Legends of Hawaii, our Big Island Story, which brings to life the ancestral song (mele) and dance (hula) that retell the epic stories of Hawaii and her remarkable people.

Conference participants and family are invited to participate in Hawaii Island's most exciting Polynesian Lu'au. Focusing on the rich history of Hawaii Island, this Luau experience is unlike any other on the Kohala Coast.

The hotel is pleased to offer a discount of 15% on the published rate to any ISOPE attendee and their family. Tickets are available through the Luau reservations desk, present your group identification tag and the discount will be applied.

WHEN: Sunday, Tuesday, Friday 6 pm, doors open at 5:30 pm

WHERE: Kamehameha Court, Reservations Required / Call Ext. 54



Dolphin Quest Activities

The Encounter - a 30 minute program including a shallow and deep-water dolphin swim experience.

Encounter Deluxe - a 45 minute program including an intimate dolphin swim supreme, full of your favorite dolphin touch, feed and play activities.

Kids Quest - a 90 minute high energy adventure for kids featuring a face-to-face dolphin encounter.

Sea Quest - a 1 hour and 45 minute ultimate Hawaiian Quest with water scooters, snorkeling and dolphins.

Dolphin Family & Friends - a 45 minute “Ohana” or family program including an intimate dolphin swim supreme full of dolphin touch, feed and play activities.

Wee Tots - a 10 minute encounter with your child age 2 - 4 to meet a dolphin.

WAIKOLOA GOLF

Waikoloa Beach and Kings’ Courses



Book a round of golf on the Beach or Kings’ Course and receive a free personalized bag tag! Your bag tag is the

perfect souvenir to take back home to remind you of your memorable golf experience at the Waikoloa Beach and Kings' Courses. Please mention the Hilton Club Promotion when you are reserving your tee times.

The more golf you play at Waikoloa Golf, the better the deals get! Enjoy 2, 3, 4 rounds of golf starting at \$98.25 per person, per round when prepaying for a four round golf package with no time or course restrictions. Cost includes green fees, shared cart, bottled water and use of the practice facilities.

For more information or to make a tee time, call the golf shop at 808.886.7888 or Ext. 2675 or visit: waikoloagolf.com

The Island Destination

The island of Hawaii is the largest island in the Hawaiian chain with an area twice as big as all the other Hawaiian islands combined, and is consequently known as "The Big Island." It is a land as diverse as it is large with some of the most unique natural wonders on Earth. One of these is Mauna Loa, the world's largest active volcano. Kilauea volcano on its southernmost flank has been continuously erupting since 1983, and adds acreage to the island daily, making the Big Island even bigger.

Other scenic attractions include rainforests, waterfalls, and tropical beaches of white, green and black sand, snow-capped peaks, mist shrouded pastures, and vast areas of lava. The climate varies as widely as the landscape, ranging from the balmy mid-80s at sea level to below freezing temperatures at the summit of 13,796-foot Mauna Kea, the tallest mountain mass in the world.

Hawaii is known throughout the world for its richly flavored Kona coffee and delicate and beautiful orchids. It is the state's largest producer of papayas, avocados, macadamia nuts and anthuriums. Here, too, are about 1,660 species of flowering plants and 45 species of birds found nowhere else on Earth, making Hawaii a paradise for botanists and ornithologists. Astronomers are attracted to the summit of Mauna Kea for some of the best viewing conditions on Earth, and telescopes have been built there

by the Americans, French, Japanese, Canadian, and British.

Guide Book – online

Discover how much there is to see and do on Hawaii Island. Explore this informative guidebook to learn about the island's top sights and attractions, and the defining qualities that make Hawaii Island so unique. Browse the features below or search the guidebook topics alphabetically by using the "Topics by Category" tab above. <http://www.gohawaii.com/big-island/guidebook>

The Big Island is Big on Kids

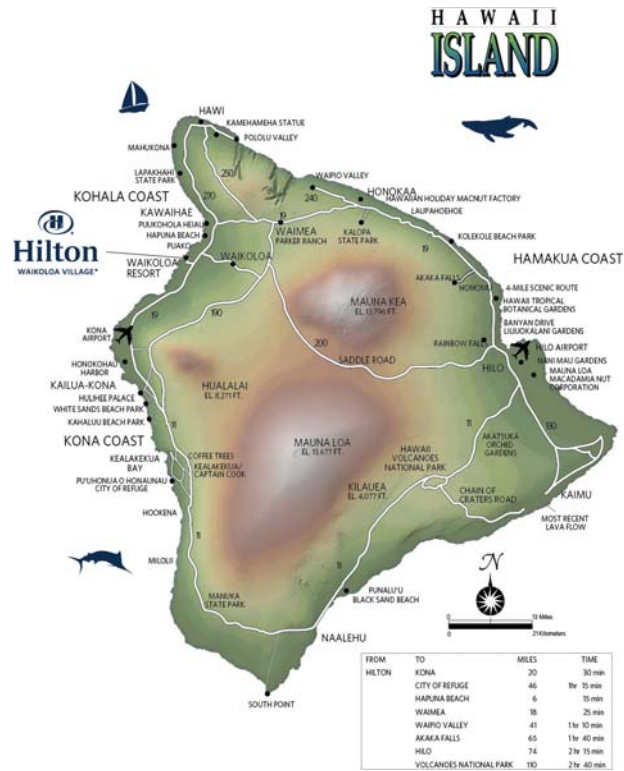
From “Water” (catamarans, kayaks, submarines), to “Fluming Da Ditch” Hawaii Island has it all. Within the Hilton Waikoloa Village there abound numerous areas of discovery from learning to play the ukulele, swimming with the dolphins, stand-up paddle boarding near the turtles, putt-putt golf and water slides.



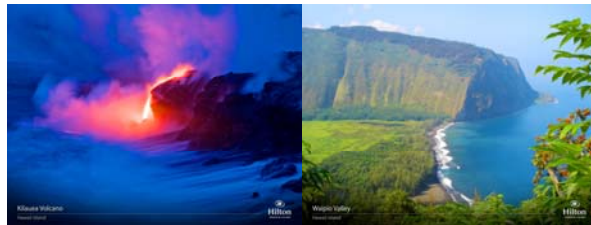
Club Keiki (children in Hawaiian)

Full Day \$90 full day, includes lunch. 8 am – 4 pm daily.
Half Day \$60 half-day, includes lunch. 8 am – 1 pm or 11 am – 4 pm daily.

Night Camp \$60 includes dinner. 4:30 pm – 9:30 pm daily.
Ages 5 – 12 | Available Year-Round
Reservations Required. Non Hilton Guests welcome, based on availability—add \$10 surcharge to prices shown.



Sightseeing Recommendations



Big Island Volcano

“<http://www.hwvtoursandactivities.com>”

- Volcanoes National Park
- Waimea and Waipi'o Valley
- Akaka & Rainbow Falls
- Pololu Valley
- Kailua-Kona Town
- Hawi Town/North Kohala
- Parker Ranch, home of the Hawaiian Cowboy, Paniolo
- Captain Cook/Kealakekua Bay
- Mauna Kea Observatories
- Hapuna Beach

- White Sands Beach
- Hiking
- Zip Lining
- Standup Paddle Surfing
- Surfing
- ATV Tours
- Horseback Rides
- Parasailing
- Kohala Ditch Adventures
- Outrigger Canoe Paddling
- Additional Island Sports Available
- Honaunau Beach
- City of Refuge at Honaunau
- Adventure Tours
- Zipline Tours
- ATV Tour
- Horseback Rides
- Island Van Tours
- Helicopter and Air Tours
- Parasailing
- Submarine Rides
- Kona Coffee Plantations
- The world's largest Hula competition

Ocean Sports



Step aboard for Hawaii's Best Whale Watch Cruises departing 3 times every day! Experience the excitement of hands on sailing, or simply relax and indulge your senses aboard our fleet of luxurious and legendary sailing catamarans! Adventures for the whole family include round-trip transportation. Located in the resort area, transportation provided.

Boating Adventure Schedule

Scuba Two Tank Boat Dive: 7:30 – Noon
 Ocean Sports Snorkel Adventure: 10:30-2:00
 Champagne Sunset Dinner Cruise: 4:00-Sunset
 Moku Nui Sunset Sail: 4:00 - Sunset

Glass Bottom Boat Rides: 9:15, 10:00, 10:45, 11:30, 12:30, and 1:15

For more information and reservations for any of our activities or cruises, please dial Ext. 1200.

SIGHT SEEING AND TOUR PROGRAM

There is no separate ISOPE-sponsored tour this year since there are too many choices available. The hotel concierge can assist you in arranging tours or you can contact your travel agent and check with other tour agents on the internet for tour packages.

Click <http://www.hwvtoursandactivities.com>

Activities Desk located in multiple areas around the resort.



ISOPE-2014 Coffee/Tea Break



ADVANCE CONFERENCE REGISTRATION

Registration fee starts at **\$690** (and **\$480** for student).

Click [here](#) for advance registration form.

Mail your registration form together with your payment to:

ISOPE Accounting (ISOPE-2015)
495 North Whisman Road, Suite 300
Mountain View, California 94043-5711
USA

Email: isope-2@isope.org

Fax: +1-650-254-2038; Phone: +1-650-254-1871

Advance Registration Deadline:

Presenting Authors: March 24, 2015 (and January 10 for some authors).

Non-authors and non-presenting authors: May 20, 2015

REGISTRATION BADGE

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



Grand Promenade, Registration and Session Rooms

ON-SITE CONFERENCE REGISTRATION:

Grand Promenade, Convention Center

Participants who miss the advance registration (before **May 20**) 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, June 21	15:00 -18:00	Wednesday, June 24	08:00-15:00
Monday, June 22	07:30 -16:00	Thursday, June 25	08:00-15:00
Tuesday, June 23	08:00 -16:00	Friday, June 26	08:00-13:00

ISOPE-2015 CONFERENCE PROCEEDINGS

A 4-volume ISOPE-2015 conference proceedings on CD-ROM (**ISBN 978-1-880653-89-0; 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 (**5,700 pp. est.**)

Mail, E-mail or Fax order **Tentative \$410** (ISOPE Member **\$350**)

Email, Mail or Fax Order from ISOPE, 495 North Whisman Road, Suite 300, Mountain View, California 94043-5711, USA: orders@isope.org; 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.isope.org).



ISOPE-2014 Opening Session

WELCOME RECEPTION

Sunday

Kona Pool

ANNUAL CONFERENCE BANQUET

Wednesday

Grand Ballroom



ISOPE-2014 Banquet

AUTHOR USB TEST

Individual session rooms Power-point or LCD projector and screen are available during 08:00-17:00 (Monday - Thursday).

CHAIR/CO-CHAIR BRIEFING

The **session chairs and co-chairs** will be briefed at 07:30 each morning near the registration desk Grand Promenade and will pick up session jacket for author briefings on the day of presentation.

Chairs and co-chairs will also be emailed brief instructions in advance, including the manner of each session conduct and information on authors and presentation.



Student Fellowship

PRESENTING AUTHORS should go directly to their session room 30 minutes before the session and check out the USB presentation file.

INFORMATION - MESSAGE CENTER.

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

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 U.S. citizens and some countries.

CLIMATE

The climate in Hawaii in the month of June will be sunny and warm, with the North-East trade winds to keep you cool and comfortable. Swimming and other water activities will be very pleasant.



PUBLICATION ORDER INFORMATION

To order, download the publication order form from www.isopec.org > orders, www.isopec.org > publications, or e-mail to orders@isopec.org asking for the order form, and enclose the correct amount of payment or purchase order, and mail to:

ISOPE Order Department
495 North Whisman Road, Suite 300
Mountain View, California 94043-5711 USA
Fax 1-650-254-2038: orders@isope.org.

AUTHOR INDEX AND SUBJECT INDEX

With the advancement of Find or Search function in PDF file, one can use Find or Search in the PDF file of the conference programs posted on www.isope.org. For ISOPE CD-ROM, Click **Ctrl F** will display **FIND**.

ISOPE conference and symposium proceedings are peer-reviewed, indexed by SCOPUS and EI Compendex and others.

International Journal of Offshore and Polar Engineers

- Quarterly (March, June, September, December) (ISSN 1053-5381): *Indexed by SCI-E and SCOPUS and EI Compendex and others.*

Abstract pages on www.isope.org > publications

Topics: *ocean and marine engineering, offshore engineering, environment, hydrodynamics, offshore mechanics, Arctic and Antarctic engineering, structures and materials, energy/Resources, and emerging topics:*

Yearly subscription rates: US\$170. (Member; complimentary) and US\$100 per a set of annual back issues. US\$60 per issue.

Journal of Ocean and Wind Energy

- Quarterly (February, May, August, November) (ISSN 2310-3604): *Indexed by SCI-E (expected), SCOPUS and EI Compendex and others.*

The first issue published in February 2014: Volume 1, Number 1.

Full papers of 2014 issues available on www.isope.org > publications

Topics: Offshore Wind Energy, Ocean Energy, Environment, Coupled Aero-Hydrodynamics, Hydrodynamics, CFD, Structure-Foundation Interaction, Turbine, Control, Floating Systems, Bottom-Fixed Systems, Design, Optimization, *and emerging topics:*

Yearly subscription rates: US\$160. (Member; complimentary) and US\$100 per a set of annual back issues. US\$60 per issue.

Proceedings of Pacific/Asia Offshore Mechanics Symposium

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, 16-18 April 1994. A single volume (ISBN 1-880653-15-X); 797 pp., US\$100.

Proceedings of the 4th (1996) ISOPE Pacific/Asia Offshore Mechanics Symposium (PACOMS-96), Pusan, Korea, October 31-November 2, 1996. A single volume (ISBN 978-1-880653-27-2; ISSN 1946-0031);325 pp., US\$80 (ISOPE Member; \$60).

Proceedings of the 5th (2002) ISOPE Pacific/Asia Offshore Mechanics Symposium (PACOMS-2002), Daejeon, Korea, November 17–20, 2002. A single volume (hard copy and CD-Rom) (ISBN 978-1-880653-59-3; ISSN 1946-0031);252 pp., US\$120 (ISOPE Member; \$80).

Proceedings of the 6th (2004) ISOPE Pacific/Asia Offshore Mechanics Symposium (PACOMS-2004), Vladivostok, Russia, September 12–16, 2004. A single volume (hard copy and CD-Rom) (ISBN 978-1-880653-63-0; ISSN 1946-004X); 299 pp., US\$100 (ISOPE Member; \$80).

Proceedings of the 7th (2006) Pacific/Asia Offshore Mechanics Symposium (ISOPE PACOMS-2006), Dalian, China, September 17–21, 2006. A single volume (CD-ROM) (ISBN 978-1-880653-67-8; ISSN 1946-004X); 357 pp., US\$100 (ISOPE Member; \$80).

Proceedings of the 8th (2008) Pacific/Asia Offshore Mechanics Symposium (PACOMS-2008), Bangkok, Thailand, November 17–21, 2006. A single volume (CD-ROM) (ISBN 978-1-880653-52-4; ISSN 1946-004X);334 pp., US\$100 (ISOPE Member; \$80).

Proceedings of the 9th (2010) Pacific/Asia Offshore Mechanics Symposium (PACOMS-2010), Busan, Korea, November 14–17, 2010. A single volume (CD-ROM, ISBN 1-880653-79-1, ISSN 1946-004X); 362 pp., US\$100 (ISOPE Member; \$80).

Proceedings of the 10th (2012) Pacific/Asia Offshore Mechanics Symposium (PACOMS-2014), Vladivostok, Russia, October 3-5, 2012. A single volume (CD-ROM, ISBN 1-880653-79-1, ISSN 1946-004X); 362 pp., US\$100 (ISOPE Member; \$80).

Proceedings of the 11th (2014) Pacific/Asia Offshore Mechanics Symposium (PACOMS-2014), Shanghai, China, October 12-16, 2014. A single volume (CD-ROM, ISBN 1-880653-90-6, ISSN 1946-004X); 433 pp., US\$100 (ISOPE Member; \$80).

Proceedings of European Offshore Mechanics Symposium

Proceedings of the 1st (1990) European Offshore Mechanics Symposium (EUROMS-90), Trondheim, Norway, 20-22 August 1990. A single volume: (ISBN 0-9626104-4-5; LCCN 90-084691); approx. 590 pp., US\$80. (Member; US\$60.)

Proceedings of the 2nd (1999) ISOPE European Offshore Mechanics Symposium (EUROMS-99): (of Synopsis in Russian and English), Moscow, Russia, 7-9 June 1999. A single volume: (ISBN 1-880653-44-3); approx. 126 pp., US\$50. (Member; US\$40.)

Proceedings of the ISOPE Ocean Mining Symposium

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., US\$100 (Member; US\$80.)

Proceedings of the 2nd (1997) ISOPE Ocean Mining Symposium, Seoul, Korea, November 24-26, 1997. A single volume (ISBN 1-880653-33-8, LCCN 97-74490): 201 pp., US\$100 (Member; US\$80.)

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