

POLISH ACADEMY OF SCIENCES

POLISH NAVIGATION FORUM



ANNUAL of NAVIGATION

No25

2019



POLISH ACADEMY OF SCIENCES
POLISH NAVIGATION FORUM



eISSN 2300-6633

ANNUAL of NAVIGATION

No. 25

2018

Programme Council

Stanisław Oszczak (President), Krzysztof Czaplewski, Daniel Duda, Marek Grzegorzewski, Lucjan Gucma, Stanisław Gucma, Jerzy Hajduk, Mirosław Jurdziński, Stanisław Kofaczyński, Zdzisław Kopacz, Andrzej Lenart, Janusz Narkiewicz, Bogdan Ney, Cezary Specht, Aleksander Walczak, Bernard Wiśniewski, Adam Weintrit, Zbigniew Wiśniewski, Janusz Zieliński

Frantisek Adamcik (Slovakia), Michael Card (IALA-AISM), Dana Goward (USA), Dorota A. Grejner-Brzezinska (USA), Guenter Hein (Germany), Jung Sik Jeong (Korea), Sergio Camacho Lara (Mexico), David Last (United Kingdom), Bertrand Merminod (Switzerland), Junmin Mou (China), Stojan Petelin (Slovenia), Refaad Rashad (Egypt), Boris Rivkin (Russia), Herman Rohling (Germany), Frantisek Vejrazka (Czech Republic), Peter Voersmann (Germany), Mario Vultaggio (Italy), Nick Ward (United Kingdom)

Reviewers of this issue

Adamcik F., Batista M., Cefallo R., Gorska N., Jeong J., Mou J., Mudronia L., Olejnik F., Perkovic M., Rashad R., Stamenov B.,

Banachowicz A., Dyrz Cz., Januszewski J., Jurdziński M., Kelner J., Montewka J., Naus K., Popielarczyk D., Stupak T., Śniegocki H., Walczak A., Wąż M., Wolski A., Zieliński J.B.

Editorial Board

Editor in Chief: Andrzej Felski

Associate Editors: Andrzej Banachowicz, Janusz Ćwiklak, Dariusz Gotlib, Janusz Uriasz, Kazimierz Szczepański

Executive Editor: Beata Różańska

Mailing Address: Institute of Navigation and Maritime Hydrography AMW
69 Śmidowicza Str.
81-127 Gdynia
a.felski@amw.gdynia.pl

Published in affiliation with the Gdańsk Branch of the Polish Academy of Sciences

We are indexed by Arianta, Baidu Scholar, BazTech, CNKI Scholar, CNPIEC, Celdes, Dimensions, DOAJ, EBSCO Discovery Service, Genamics JournalSeek, Google Scholar, Japan Science and Technology Agency, J-Gate, JurlanTOCs, KESLI-NDSL, Naviga (Softweco), POL-index, Primo Central (Exlibris), Publons, QOAM, ReadCube, Sherpa/RoMEA, Summon (Serials Solutions/ProQuest), TdNet, TEMA Technik und Management, Ulrich's Periodicals Directory/ulrichsweb, WanFang Data, WorldCat (OCLC)

Citation

When citing papers from this volume the following reference should be used:

Author(s), Title, Annual of Navigation, 2018, No. 25

CONTENS

EVALUATION CRITERIA AND APPROACH TO VOYAGE PLANNING IN ICE VERIFICATION ON THE EXAMPLE OF GERMAN SHIP ACTIVITY DURING THE SECOND WORLD WAR <i>by TADEUSZ PASTUSIAK</i>	5
THE RISK OF COLLISION ASSESSMENT WITH GRAPHIC FORMS OF TARGET DATA PRESENTATION USE <i>by WIESŁAW JUSZKIEWICZ</i>	27
SHIP DOMAIN IN VARIOUS VISIBILITY CONDITIONS IN RESTRICTED WATERS <i>by ZBIGNIEW PIETRZYKOWSKI, MAREK SIEMIANOWICZ, MIROŚLAW WIELGOSZ</i>	41
UNIVERSAL SIMULATION METHOD FOR DETERMINATION THE MANEUVERABILITY OF FERRY ON THE EXAMPLE OF YSTAD PORT <i>by LUCJAN GUCMA, RAFAŁ GRALAK, BARTOSZ MUCZYŃSKI, MARCIN PRZYWARTY</i>	51
ASSESSMENT OF GNSS POSITION INTEGRITY WITH THE USE OF POST-PROCESSED EGNOS DATA IN THE AREA OF SZCZECIN-ŚWINOUJŚCIE WATERWAY <i>by MATEUSZ BILEWSKI, PAWEŁ ZALEWSKI</i>	67
CONCEPT OF LNG TRANSFER AND BUNKERING MODEL OF VESSELS AT SOUTH BALTIC SEA AREA <i>by MACIEJ GUCMA, ANDRZEJ BĄK, EWELINA CHŁOPIŃSKA</i>	79
DETERMINATION OF THE RISK OF LOCATION THE QUAY FOR LARGE STEEL COMPONENTS HANDLING IN VICINITY OF THE FAIRWAY USING THE FAST-TIME SIMULATION METHOD <i>by KRZYSZTOF MARCJAN, LUCJAN GUCMA</i>	93
THE ELECTROMAGNETIC FIELD IN THE VICINITY OF RADIO-NAVIGATION SYSTEMS <i>by NATALIA JÓŻWIK-MICHAŁOWSKA, ANDRZEJ FELSKI</i>	109
THE SHELL OCEAN DISCOVERY XPRIZE COMPETITION IMPACT ON THE DEVELOPMENT OF OCEAN MAPPING POSSIBILITIES <i>by KAROLINA ZWOLAK, YULIA ZARAYSKAYA, ROCHELLE ANN WIGLEY, CHRISTINA LACERDA, TOMER KETTER, ROBERT ANDERSON, EVGENIA BAZHENOVA, AILEEN BOHAN, WETHERBEE DORSHOW, MOHAMED ELSAIED, ANDRES FITZCARRALD, ROBIN FALCONER, TIMOTHY KEARNS, ALISON PROCTOR, JAYA ROPEREZ, IVAN RYZHOV, HADAR SADE, SEEBORUTH SATTIABARUTH, BENJAMIN SIMPSON, MASANAO SUMIYOSHI, NEIL TINMOUTH</i>	125
SIMULATION AND ANALYSIS OF PARTICLE FILTER BASED SLAM SYSTEM <i>by PIOTR KANIEWSKI, PAWEŁ SŁOWAK</i>	137

REMOVING THE INFLUENCE OF NETWORK EFFECT ON LOCAL POSITION SOLUTION	
<i>by JANUSZ ĆWIKLAK, STEPAN SAVCHUK, SOFIYA DOSKICH</i>	155
THE IDENTIFICATION OF POSSIBLE APPLICATIONS OF THE E-LORAN SYSTEM	
<i>by KRZYSZTOF CZAPLEWSKI, ADAM WEINTRIT</i>	165
CONVERSION OF A SECOND - TO FIRST-ORDER LINEAR NOMOTO MODEL IN THE LIGHT OF ZIGZAG MANOEUVRE PERFORMANCE	
<i>by JAROSŁAW ARTYSZUK</i>	187
STATISTICAL ANALYSIS OF PARAMETERS OF SELECTED WORLDWIDE YACHT PORTS AND MARINAS IN TERMS OF DESIGN GUIDELINES	
<i>by LUCJAN GUCMA, KINGA DRWIĘGA, RADOSŁAW BUTRYMOWICZ</i>	205
DETECTION OF SMALL BOTTOM OBJECT FROM MULTIBEAM ECHOSOUNDER DATA	
<i>by DOMINIK IWEN, MARIUSZ WĄŻ</i>	219
THE ANALYSIS OF MARITIME ACCIDENTS IN IN 2017	
<i>by ALICJA MROZOWSKA, PIOTR MROZOWSKI</i>	233
ESTIMATION OF SLANT TROPOSPHERIC DELAYS FROM GNSS OBSERVATIONS WITH USING PRECISE POINT POSITIONING METHOD	
<i>by STEPAN SAVCHUK, ALINA KHOPTAR</i>	253
THE USE OF AUTOMATIC COMMUNICATION SYSTEM ON EXAMPLE OF A CONVERSATION BETWEEN M/V CORVUS J AND M/S BALTIC ACE	
<i>by ANNA WÓJCIK, PAWEŁ BANAŚ</i>	267