

URN Technical Bibliography for the Innovation Center, Transport Canada

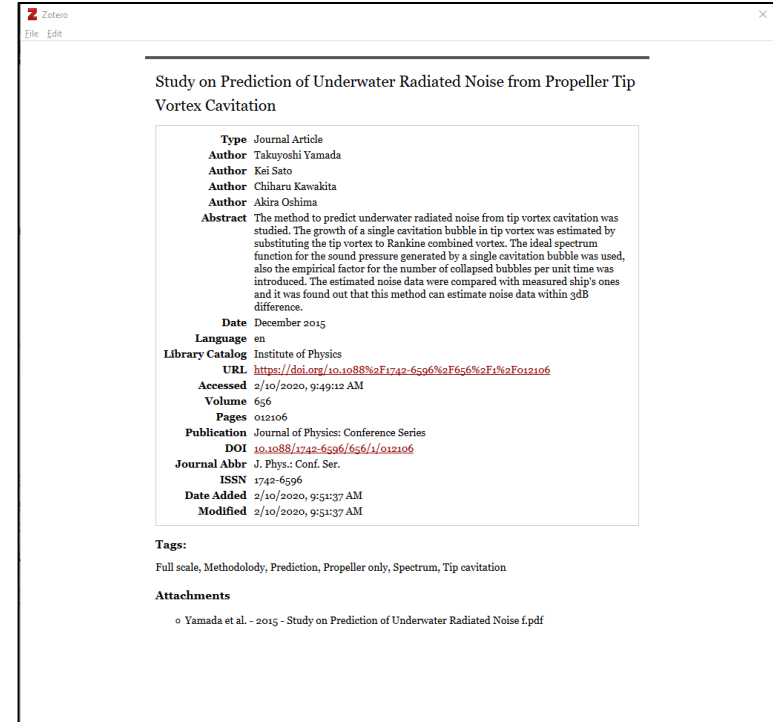
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CISMaRT 2020, 25 November 2020

OBJECTIVES OF TECHNICAL BIBLIOGRAPHY

- Investigate, review, collect URN references
 - Hydrodynamic aspects
 - Methodology, prediction, data
- Evaluation of references
 - Merit, relevancy, scope
 - Keywords for research



The screenshot shows a Zotero library entry for a journal article. The title is "Study on Prediction of Underwater Radiated Noise from Propeller Tip Vortex Cavitation". The entry includes metadata such as author names (Takuyoshi Yamada, Kei Sato, Chiharu Kawakita, Akira Oshima), the date (December 2015), and a DOI link. An abstract is provided, describing the method used to predict underwater radiated noise from tip vortex cavitation. The entry also includes tags like "Full scale, Methodology, Prediction, Propeller only, Spectrum, Tip cavitation" and an attachment for the PDF file.

Study on Prediction of Underwater Radiated Noise from Propeller Tip Vortex Cavitation

Type Journal Article
Author Takuyoshi Yamada
Author Kei Sato
Author Chiharu Kawakita
Author Akira Oshima

Abstract The method to predict underwater radiated noise from tip vortex cavitation was studied. The growth of a single cavitation bubble in tip vortex was estimated by substituting the tip vortex to Rankine combined vortex. The ideal spectrum function for the sound pressure generated by a single cavitation bubble was used, also the empirical factor for the number of collapsed bubbles per unit time was introduced. The estimated noise data were compared with measured ship's ones and it was found out that this method can estimate noise data within 3dB difference.

Date December 2015
Language en
Library Catalog Institute of Physics
URL <https://doi.org/10.1088/1742-6596/656/1/012106>
Accessed 2/10/2020, 9:49:12 AM
Volume 656
Pages 012106
Publication Journal of Physics: Conference Series
DOI [10.1088/1742-6596/656/1/012106](https://doi.org/10.1088/1742-6596/656/1/012106)
Journal Abbr J. Phys.: Conf. Ser.
ISSN 1742-6596
Date Added 2/10/2020, 9:51:37 AM
Modified 2/10/2020, 9:51:37 AM

Tags:
Full scale, Methodology, Prediction, Propeller only, Spectrum, Tip cavitation

Attachments
o Yamada et al. - 2015 - Study on Prediction of Underwater Radiated Noise f.pdf
























CONTENT AND SOURCES

- Principal content topics
 - Noise limit criteria, wake field descriptors, full- and model-scale test data, total spectrum prediction
 - Prediction of noise from propeller tip vortex, blade cavitation, and non-cavitating flow
- References sources
 - In-house search (from library of 10000+ docs)
 - On-line search (from relevant collections)

DELIVERABLE

■ Digital bibliography provided to TC

- *Zotero* reference management app
- 200+ references in bibliography (including PDFs)

Name	Date modified	Type	Size
 Aktas 2018 An advanced joint time-frequency analysis procedure to study cavitation-induced noise ...	11/8/2018 12:02 PM	Adobe Acrobat D...	10,234 KB
 Arveson 2000 Radiated noise characteristics of a modern cargo ship.pdf	6/29/2009 2:51 PM	Adobe Acrobat D...	251 KB
 Ayris 2016 Effects of propeller geometry on cavitation.pdf	4/22/2017 10:40 AM	Adobe Acrobat D...	4,740 KB
 Bahtiarian 2017 Ship Generated Underwater Noise.pdf	1/12/2018 8:32 AM	Adobe Acrobat D...	2,445 KB
 Baudin 2015 A Comprehensive Framework To Adress Ship Underwater Radiated Noise - From Bureau...	6/24/2017 1:56 PM	Adobe Acrobat D...	729 KB
 Bertetta 2012 CPP propeller cavitation and noise optimization at different pitches with panel code an...	2/13/2013 2:21 PM	Adobe Acrobat D...	3,419 KB
 Bosschers 2017 A semi-empirical method to predict broadband pressure fluctuations and underwate...	8/9/2017 3:51 PM	Adobe Acrobat D...	545 KB
 Bosschers 2018 A Semi-Empirical Prediction Method for Broadband Hull-Pressure Fluctuations and ...	8/8/2018 12:11 PM	Adobe Acrobat D...	5,460 KB
 Brooker 2015 Measurement of radiated underwater noise from a small research vessel in shallow wat...	11/19/2018 9:10 AM	Adobe Acrobat D...	3,382 KB
 Cheng 2018 Experimental investigation of the effects of blade geometry on pressure fluctuation and ...	8/14/2018 7:28 AM	Adobe Acrobat D...	3,907 KB
 Dang 2019 Development of Tunnel Thruster Series Propellers for Low Noise and Vibration.pdf	2/12/2020 11:09 AM	Adobe Acrobat D...	1,068 KB
 DeBruijn 1986 Shipboard Acoustics ISSA 86.pdf	9/2/2017 5:18 PM	Adobe Acrobat D...	24,624 KB
 Dylejko 2007 Optimum resonance changer for submerged vessel signature reduction.pdf	6/10/2009 8:55 AM	Adobe Acrobat D...	1,906 KB
 Ekinci 2010 A Practical Noise Prediction Method for Cavitating Marine Propellers.pdf	1/16/2012 4:26 PM	Adobe Acrobat D...	364 KB
 Feizi Chekab 2013 Investigation of Different Methods of Noise Reduction for Submerged Marine Pro...	7/6/2017 2:09 PM	Adobe Acrobat D...	873 KB
 Fischer 2005 Factors affecting the underwater noise of commercial vessels operating in environment...	2/7/2018 9:38 AM	Adobe Acrobat D...	217 KB
 Francis 1986 A study on the flow structure of tip vortices on a hydrofoil.pdf	10/6/2017 3:06 PM	Adobe Acrobat D...	3,193 KB
 Gaggero 2014 A study on the numerical prediction of propellers cavitating tip vortex.pdf	12/11/2014 8:37 AM	Adobe Acrobat D...	7,815 KB
 Gassmann 2017 Underwater noise comparison of pre- and post-retrofitted MAERSK G-class containe...	7/15/2019 9:09 AM	Adobe Acrobat D...	4,304 KB
 Green 1988 Tip Vortices - Single Phase and Cavitating Flow Phenomena.pdf	5/14/2019 9:59 AM	Adobe Acrobat D...	49,992 KB
 Haimov 2014 Propeller Acoustic Measurements in Atmospheric Towing Tank.pdf	10/25/2017 3:07 PM	Adobe Acrobat D...	3,028 KB
 Houghton 2015 The Relationship between Vessel Traffic and Noise Levels Received by Killer Whales.P...	4/27/2018 11:53 AM	Adobe Acrobat D...	1,652 KB
 Hynninen 2017 On predicting the sound from a cavitating marine propeller in a tunnel.pdf	4/3/2019 2:18 PM	Adobe Acrobat D...	3,641 KB

PRESENTER INFO

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 - SNAME Fellow; H8 (Propellers) and EC14 (URN) panels
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