Proceedings of ASME Turbo Expo 2022: Turbomachinery Technical Conference and Exposition

(GT2022)

Volume 11

June 13-17, 2022 Rotterdam, The Netherlands

> Conference Sponsor International Gas Turbine Institute

Two Park Avenue * New York, N.Y. 10016

© 2022, The American Society of Mechanical Engineers, 2 Park Avenue, New York, NY 10016, USA (www.asme.org)

All rights reserved. Printed in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

INFORMATION CONTAINED IN THIS WORK HAS BEEN OBTAINED BY THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS FROM SOURCES BELIEVED TO BE RELIABLE. HOWEVER, NEITHER ASME NOR ITS AUTHORS OR EDITORS GUARANTEE THE ACCURACY OR COMPLETENESS OF ANY INFORMATION PUBLISHED IN THIS WORK. NEITHER ASME NOR ITS AUTHORS AND EDITORS SHALL BE RESPONSIBLE FOR ANY ERRORS, OMISSIONS, OR DAMAGES ARISING OUT OF THE USE OF THIS INFORMATION. THE WORK IS PUBLISHED WITH THE UNDERSTANDING THAT ASME AND ITS AUTHORS AND EDITORS ARE SUPPLYING INFORMATION BUT ARE NOT ATTEMPTING TO RENDER ENGINEERING OR OTHER PROFESSIONAL SERVICES. IF SUCH ENGINEERING OR PROFESSIONAL SERVICES ARE REQUIRED, THE ASSISTANCE OF AN APPROPRIATE PROFESSIONAL SHOULD BE SOUGHT.

ASME shall not be responsible for statements or opinions advanced in papers or . . . printed in its publications (B7.1.3). Statement from the Bylaws.

For authorization to photocopy material for internal or personal use under those circumstances not falling within the fair use provisions of the Copyright Act, contact the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923, tel: 978-750-8400, www.copyright.com.

Requests for special permission or bulk reproduction should be addressed to the ASME Publishing Department, or submitted online at: https://www.asme.org/publications-submissions/journals/information-for-authors/journalguidelines/rights-and-permissions

ISBN: 978-0-7918-8613-7

CONTENTS

Proceedings of ASME Turbo Expo 2022: Turbomachinery Technical Conference and Exposition Volume 11

Wind Energy	
GT2022-80198	1
GT2022-80201	2
GT2022-80471	3
GT2022-81169	4
GT2022-81294	5
GT2022-81874	6
GT2022-81910	7
GT2022-81983	8
GT2022-81988	9
GT2022-82052	0
GT2022-82096	1
GT2022-82207	2

GT2022-82264)11T38A013
GT2022-82268 Impact of Post-Stall Extrapolation and Rotational-Augmentation Models on the Performance of Stall-Controlled Wind Turbines Francesco Papi, Alberto Nocentini, Pier Francesco Melani, and Alessandro Bianchini)11T38A014
GT2022-82462 Unsupervised Feature Selection of Multi-Sensor SCADA Data in Horizontal Axis Wind Turbine Condition Monitoring Eric Stefan Miele, Fabrizio Bonacina, Alessandro Corsini, Arianna Peruch, Marco Cannarozzo, Daniele Baldan, and Francesco Pennisi	011T38A015
GT2022-82500	011T38A016
GT2022-82584	011T38A017
GT2022-82624)11T38A018
GT2022-82770)11T38A019
GT2022-82867 Parametric Design of Radial Guide Vanes for Power Augmentation of Darrieus-Type Vertical-Axis Wind Turbines Pier Francesco Melani, Francesco Balduzzi, Giovanni Ferrara, Alessandro Bianchini, Roberto Bissanti, and Palmiro Bissanti	011T38A020
GT2022-83219	011T38A021
GT2022-83444	011T38A022
GT2022-83454	011T38A023
GT2022-83860	011T38A024