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The Science of Making Torque from Wind (TORQUE 2018)

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The Science of Making Torque from Wind 2018 (TORQUE 2018)

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In 2017 wind power has gained momentum and its contribution to the worldwide energy mix is now essential. The global wind power market has now reached above 50 GW of installed capacity, with Europe experiencing record years [1]. Wind energy remains the second largest form of power generation in Europe, closely approaching gas installations [2]. Moreover, offshore wind in Europe saw a record of net additional installed capacity in 2017. Offshore wind exploitation has reached maturity in Europe, both technically and commercially and its costs have fallen decisively.

The scientific and economic progress is strictly connected to the innovation technologies developed in the last decades by a growing scientific community, which gathers people exploring the multidisciplinary fields of wind energy science. This community has grown further in the last years in parallel with scientific conferences specialized in wind energy. The most important event on the topic, *The Science of Making Torque from Wind* (or TORQUE, in short), was organized for the first time in 2004 in Delft thanks to the support of the European Academy of Wind Energy (EAWE). Since then, it has become a biennial appointment which now has a cousin: *Wind Energy Science Conference* (WESC) again supported by EAWE.

TORQUE 2018, the seventh edition of this event, has been organized by the Department of Aerospace Science and Technology of the Politecnico di Milano. The conference offers both oral and poster presentations. The scientific program, together with the social events, allows huge opportunities for networking and exchanging ideas.

The proceedings of TORQUE 2018 contain more than 240 papers. All submissions were subjected to a two-stage peer review process, which included the review of a three-pages abstract followed by the review of the full paper. Accepted papers have been grouped in six technical sessions, each organized by four leading experts in the field who also act as co-editors of these proceedings: Sandrine Aubrun (EC Nantes), Ervin Bossanyi (DNV GL), Carlo L. Bottasso (TUM), Philippe Chatelain (UCLouvain), Takis Chaviaropoulos (NTUA), Po Wen Cheng (USTUTT), Katherine Dykes (NREL), Carlos Simao Ferreira (TUDelft), Paul Fleming (NREL), Morten Hartvig Hansen (DTU), Stefan Ivanell (Uppsala University), Jason Jonkman (NREL), Martin Kühn (ForWind-Oldenburg), Jakob Mann (DTU), Michael Muskulus (NTNU), Joshua A. Paquette (SANDIA), Fernando Porté-Agel (EPFL), Flemming Rasmussen (DTU), Vasilis Riziotis (NTUA), Gerard J.G. Schepers (ECN part of TNO), Jens Nørkær Sørensen (DTU), Jan-Willem van Wingerden (TU Delft), Spyros Voutsinas (NTUA), Frederik Zahle (DTU). In addition, over 100 reviewers helped in ensuring the quality of the papers. These proceedings and the whole conference would not have been possible without the crucial contribution of all



these individuals.

We are personally very grateful to our team in Milano and specifically to Laura Dalzini for her impressive work and dedication in the last year.

We look forward to welcoming you to TORQUE 2018!

Milano, June 2018.

References

- [1] GWEC April 2018 Global Wind Report 2017 *ANNUAL MARKET UPDATE 2017*
- [2] WindEurope February 2018 Wind in power 2017 *Annual combined onshore and offshore wind energy statistics*