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Collana	Green Energy and Technology, , 1865-3529
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Effect of cold climates on wind turbine design and operation -- Relevance of icing for wind turbines -- Aerodynamic performances of ice contaminated rotors -- Icing process -- Ice prevention systems (IPS).
Sommario/riassunto	This book addresses the key concerns regarding the operation of wind turbines in cold climates, and focuses in particular on the analysis of icing and methods for its mitigation. Topics covered include the implications of cold climates for wind turbine design and operation, the relevance of icing for wind turbines, the icing process itself, ice prevention systems, and thermal anti-icing system design. In each chapter, care is taken to build systematically on the basic knowledge, providing the reader with the level of detail required for a thorough understanding. An important feature is the inclusion of several original analytical and numerical models for ready computation of icing impacts

and design assessment. The breadth of the coverage and the in-depth scientific analysis, with calculations and worked examples relating to both fluid dynamics and thermodynamics, ensure that the book will serve not only as a textbook but also as a practical manual for general design tasks.