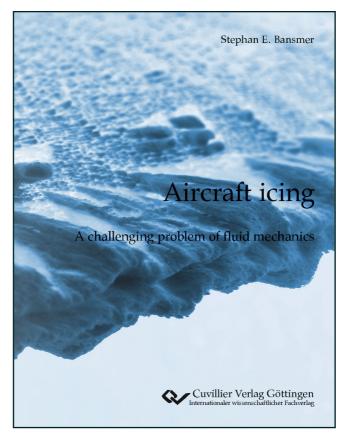


Stephan Bansmer (Autor) Aircraft icing A challenging problem of fluid mechanics.



https://cuvillier.de/de/shop/publications/8249

Copyright:

Cuvillier Verlag, Inhaberin Annette Jentzsch-Cuvillier, Nonnenstieg 8, 37075 Göttingen, Germany

Telefon: +49 (0)551 54724-0, E-Mail: info@cuvillier.de, Website: https://cuvillier.de

Contents

I General introduction 11	
1 Historical remarks and airframer perspectives 13	
2 A challenging problem of fluid mechanics 19	
3 Selected physical properties of ice 27	
II Fluid mechanics of icing at small scales 33	
4 From nucleation to the solidification of impacting droplets	37
5 Methods to study drop impact at ambient conditions 43	
6 Drop impact on dry surfaces 51	
7 Drop impact on liquid films 59	
III Fluid mechanics of icing at large scales 67	
8 Icing wind tunnel 71	
9 Simulation of ice accretion 85	
10 Understanding glaze ice accretion 101	
Bibliography 119	
Nomenclature 133	