Record Nr. UNINA9910458903503321 Autore Swaffield J. A. <1943-, > Titolo Transient airflow in building drainage systems / / John Swaffield Abingdon, Oxon;; New York:,: Spon Press,, 2010 Pubbl/distr/stampa **ISBN** 1-134-00696-9 1-134-00697-7 1-282-59559-8 9786612595592 0-203-87975-9 Descrizione fisica 1 online resource (359 p.) 696/.1 Disciplina Soggetti Plumbing - Waste-pipes - Simulation methods Drainage - Simulation methods Ventilation - Simulation methods Air flow - Simulation methods Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Book Cover; Title; Copyright; Contents; Figures; Tables; Preface; Acknowledgements; Abbreviations and notation; 1 Building drainage and vent systems, a traditional building service requiring an engineering analysis makeover?; 2 Pressure transient propagation in building drainage and vent systems; 3 Mathematical basis for the simulation of low amplitude air pressure transients in vent systems: 4 Simulation of the basic mechanisms of low amplitude air pressure transient propagation - AIRNET applications 5 Pressure surge as a source of system failure, leading to the development of control and suppression strategies Application of the Method of Characteristics based simulation to a series of case studies; 7 Airflow applications of the Method of Characteristics simulation techniques; 8 The role of national codes in drainage and vent system design; Afterword; References; Author and organisation index; Topic

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## Sommario/riassunto

Giving you the first comprehensive presentation of the ground breaking research undertaken at Heriot Watt University, with Research Council and industrial funding, this book brings a new perspective to the design of building drainage and vent systems. It provides the building services community with clear and verifiable design methods that will be robust enough to meet challenges such as climate change and water conservation; population migration to the mega cities of the developing world, and the consequent pressures of user concentration; the rise of the prestige building and the introduc