Record Nr. UNINA9910454437903321 Combustion instabilities in gas turbine engines [[electronic resource]]: **Titolo** operational experience, fundamental mechanisms and modeling // edited by Timothy C. Lieuwen, Vigor Yang Reston, Va., : American Institute of Aeronautics and Astronautics. Pubbl/distr/stampa c2005 **ISBN** 1-60086-680-8 1-60086-461-9 1-61583-076-6 Descrizione fisica 1 online resource (672 p.) Collana Progress in astronautics and aeronautics; ; v. 210 Altri autori (Persone) LieuwenTimothy C YangVigor Disciplina 629.134/353 Soggetti Gas-turbines - Combustion Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto Combustion instabilities: basic concepts -- Combustion instabilities in industrial gas turbines: Solar Turbine's experience -- Incorporation of combustion instability issues into design process: GE aeroderivative and aero engines experience -- Combustion instability and its passive control: Rolls-Royce aeroderivative engine experience --Thermoacoustic design tools and passive control: Siemens power generation approaches -- Characterization and control of aeroengine combustion Instability: Pratt & Whitney and NASA experience --Monitoring of combustion instabilities: Calpine's experience --Monitoring combustion instabilities: E.ON UK's experience --Combustion instability mechanisms in premixed combustors -- Flow and flame dynamics of lean premixed swirl Injectors -- Acousticvortex-flame interactions in gas turbines -- Physics of premixed combustion-acoustic wave interactions -- Acoustic analysis of gasturbine combustors -- Three-dimensional linear stability analysis of gas turbine combustion dynamics -- Implementation of instability

prediction in design: ALSTOM approaches -- Experimental diagnostics

of combustion instabilities -- Passive control of combustion

instabilities in stationary gas turbines -- Factors affecting the control of unstable combustors -- Implementation of active control in a full-scale gas-turbine combustor.