

1. Record Nr.	UNINA9910780894803321
Autore	Makarov Denis
Titolo	Ray and wave chaos in ocean acoustics [[electronic resource]] : chaos in waveguides / / Denis Makarov ... [et al.]
Pubbl/distr/stampa	Hackensack, N.J., : World Scientific, c2010
ISBN	1-282-75805-5 9786612758058 981-4273-18-X
Descrizione fisica	1 online resource (412 p.)
Collana	Series on complexity, nonlinearity and chaos, , 2010-0019 ; ; v. 1
Altri autori (Persone)	MakarovDenis
Disciplina	534.23
Soggetti	Underwater acoustics Waves Chaotic behavior in systems
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	Contents; Preface; 1. Ray and Wave Propagation; 1.1 Underwater Sound Channel; 1.2 Basic Equations; 1.2.1 Helmholtz equation; 1.2.2 Parabolic equation; 1.3 Geometrical Optics Approximations and Optical-Mechanical Analogy. The Hamiltonian Formalism; 1.3.1 Eikonal and transport equations; 1.3.2 Momentum-position variables; 1.3.3 Action-angle variables in a range-independent waveguide; 1.3.3.1 Canonical transformation; 1.3.3.2 Ray path in the unperturbed waveguide; 1.3.3.3 Canonical transformation in the form of Fourier series; 1.3.4 Action-angle variables in a range-dependent waveguide 1.3.4.1 Slow range variation of the sound speed field1.3.4.2 Weak variation of the sound speed field; 1.3.5 Geometrical optics for the Helmholtz equation; 1.3.5.1 Eikonal and transport equations; 1.3.5.2 Momentum-position variables; 1.3.5.3 Action-angle variables; 1.4 Ray Travel Times; 1.4.1 Timefront; 1.4.2 Travel time as a function of starting momentum; 1.5 Range-Dependent Environments; 1.5.1 Internal waves; 1.5.2 Rossby waves; 1.5.3 Currents; 1.5.4 Eddies; 1.6 Acoustic Ocean Tomography; 1.7 Experiments on Long-Range Sound Propagation; 1.7.1 The Heard Island Feasibility Test 1.7.2 Experiments with bottom-mounted sources1.7.2.1 Downsloped

bathymetry near a source; 1.7.3 Acoustic Engineering Test; 1.7.4 Alternate Source Test; 1.7.5 Acoustic Thermometry of Ocean Climate; 1.8 Summary; 2. Ray Chaos; 2.1 Hamiltonian Chaos; 2.1.1 Dynamics of Hamiltonian systems; 2.1.2 Statistical description of Hamiltonian chaos; 2.2 Lyapunov Instability; 2.3 Ray-Medium Resonance; 2.4 Overlapping of Resonances; 2.5 Vertical Resonance; 2.5.1 Adiabatic approximation; 2.5.2 Passage through a resonance; 2.5.2.1 Scattering on a resonance; 2.5.2.2 Capturing into a resonance; 2.5.3 Vertical resonance versus ray-medium resonance; 2.5.4 Resonance-induced chaotic layer; 2.5.5 Influence of vertical resonance on a timefront of a received pulse; 2.6 Manifestation of Regular and Chaotic Ray Motion in Distributions of Ray Travel Times; 2.6.1 Perturbed waveguide; 2.6.2 Timefront; 2.6.3 Amplitude of a pulse signal in plane "travel time-depth"; 2.6.4 Gap between travel times of chaotic and regular rays; 2.6.5 "Focusing" of ray travel times; 2.6.6 Role of stickiness and chaotic jets in "focusing" of ray travel times; 2.6.7 Smoothed intensity of pulse signal; 2.7 Summary; 3. Wave Chaos; 3.1 The Problem of Wave Chaos; 3.1.1 Ehrenfest time; 3.1.2 Semiclassical propagator; 3.1.3 Fidelity or overlap of wave fields; 3.1.4 Dynamical localization; 3.2 Normal Modes; 3.2.1 Range-independent waveguide; 3.2.1.1 Eigenfunctions and eigenvalues in the WKB approximation; 3.2.1.2 Mode amplitudes; 3.2.1.3 Brillouin waves; 3.2.1.4 Matrix elements; 3.2.1.5 Ray-mode relations; 3.2.2 Range-dependent waveguide; 3.2.2.1 Coupled mode equations: slow and strong range dependence; 3.2.2.2 Coupled mode equations: weak range dependence; 3.2.3 Normal modes corresponding to the Helmholtz equation

Sommario/riassunto

A systematic study of chaotic ray dynamics in underwater acoustics began in the mid-1990s when it was realized that this factor plays a crucial role in long-range sound propagation in the ocean. The phenomenon of ray chaos and its manifestation at a finite wavelength -- wave chaos -- have been investigated by combining methods from the theory of wave propagation and the theory of dynamical and quantum chaos. This is the first monograph summarizing results obtained in this field. Emphasis is made on the exploration of ray and modal structures of the wave field in an idealized environmental model with periodic range dependence and in a more realistic model with sound speed fluctuations induced by random internal waves. The book is intended for acousticians investigating the long-range sound transmission through the fluctuating ocean and also for researchers studying waveguide propagation in other media. It will be of major interest to scientists working in the field of dynamical and quantum chaos.

2. Record Nr.	UNINA9910797753403321
Autore	Urban Hugh B.
Titolo	Zorba the Buddha : sex, spirituality, and capitalism in the global Osho movement / / Hugh B. Urban
Pubbl/distr/stampa	Oakland, California : , : University of California Press, , 2015 ©2015
ISBN	0-520-96177-3
Descrizione fisica	1 online resource (261 p.)
Disciplina	299/.93
Soggetti	Gurus New Age movement - Oregon - History - 20th century New Age movement - India - History
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	Front matter -- Contents -- Illustrations -- Preface -- Introduction: Gurus, God-Men, and Globalization -- Chapter 1. "India's Most Dangerous Guru" -- Chapter 2. "Beware of Socialism!" -- Chapter 3. "From Sex To Superconsciousness" -- Chapter 4. The Messiah America Has Been Waiting For" -- Chapter 5. "Osho" -- Chapter 6. OSHO®? -- Conclusion -- Notes -- Selected Bibliography -- Index
Sommario/riassunto	Zorba the Buddha is the first comprehensive study of the life, teachings, and following of the controversial Indian guru known in his youth as Bhagwan Shree Rajneesh and in his later years as Osho (1931-1990). Most Americans today remember him only as the "sex guru" and the "Rolls Royce guru," who built a hugely successful but scandal-ridden utopian community in central Oregon during the 1980's. Yet Osho was arguably the first truly global guru of the twentieth century, creating a large transnational movement that traced a complex global circuit from post-Independence India of the 1960's to Reagan's America of the 1980's and back to a developing new India in the 1990's. The Osho movement embodies some of the most important economic and spiritual currents of the past forty years, emerging and adapting within an increasingly interconnected and conflicted late-capitalist world order. Based on extensive ethnographic and archival

research, Hugh Urban has created a rich and powerful narrative that is a must-read for anyone interested in religion and globalization.
