

1. Record Nr.	UNINA9910911289903321
Titolo	Principles and Advances in Population Neuroscience // edited by Tomáš Paus, Jeffrey R. Brook, Katherine Keyes, Zdenka Pausova
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031701375 3031701372
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (396 pages)
Collana	Current Topics in Behavioral Neurosciences, , 1866-3389 ; ; 68
Disciplina	612.8
Soggetti	Neurosciences Public health Psychiatry Neural networks (Neurobiology) Genetics - Research Medicine - Research Biology - Research Neuroscience Public Health Systems Neuroscience Genetics Research Translational Research
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Part I Population -- Population neuroscience: Principles and advances -- Population neuroscience: understanding concepts of generalizability and transportability and their application to improving the public's health -- Population neuroscience: Strategies to promote data sharing while protecting privacy -- Racial, Ethnic, and Geographic Diversity in Population Neuroscience -- Sex and gender in population neuroscience -- Part II Genes and Molecules -- Genome-wide Association Studies of Brain Traits -- Approaches to quantifying gene expression and their application to studying the human brain -- Large-scale population-based studies of blood metabolome and brain health -- Part III

Environment -- Integrating the physical environment within a population neuroscience perspective -- Leveraging Generative AI Models in Urban Science -- Area-level measures of the social environment: Operationalization, pitfalls, and ways forward -- Advancing Population Health through Environmental Data Platforms -- Part IV Brains -- Development and Maturation of the Human Brain, from Infancy to Adolescence -- Aging brain from a lifespan perspective -- Large-scale neuroimaging of mental illness.

Sommario/riassunto

Population Neuroscience is aimed at enhancing our understanding of forces that shape the human brain and, as such, contribute to inter-individual variations in cognitive abilities, behavior and mental health throughout the lifespan. This book builds on a monograph Population Neuroscience (published by Springer in 2013; ISBN: 978-3-642-36450-1), a recent book on “Digital Ethology: Human Behavior in Geospatial Context” (published by MIT Press in 2024; ISBN: 9780262548137), and the collaborative work carried in the CHARGE and ENIGMA Consortia. Using collective expertise and knowledge with combining epidemiology, genetics and neuroimaging, the authors provide an overview of the basic principles and current advances in this field.
