1.	Record Nr.	UNINA9910969278603321
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	Titolo	The Principle of the common cause / / Gabor Hofer-Szabo, Research Center for the Humanities, Budapest, Miklos Redei, London School of Economics and Political Science, Laszlo E. Szabo, Eotvos Lorand University, Budapest
	Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2013
	ISBN	1-107-06508-9
		1-139-88874-9
		1-107-05901-1
		1-107-05773-6
		1-107-05554-7
		1-107-05450-8
		1-139-09434-3
		1-107-05665-9
	Edizione	[1st ed.]
	Descrizione fisica	1 online resource (vii, 202 pages) : digital, PDF file(s)
	Disciplina	122
	Soggetti	Causation
		Science - Philosophy
		Physics - Philosophy
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	The Common Cause Principle -- Common cause extendability of probability spaces -- Causally closed probability theories -- Common common causes -- Common cause extendability of nonclassical probability spaces -- Reichenbachian common cause systems -- Causal closedness of quantum field theory -- Reichenbach's Common Cause Principle and EPR correlations -- Where do we stand?
	Sommario/riassunto	The common cause principle says that every correlation is either due to a direct causal effect linking the correlated entities or is brought about by a third factor, a so-called common cause. The principle is of central importance in the philosophy of science, especially in causal explanation, causal modeling and in the foundations of quantum

physics. Written for philosophers of science, physicists and statisticians, this book contributes to the debate over the validity of the common cause principle, by proving results that bring to the surface the nature of explanation by common causes. It provides a technical and mathematically rigorous examination of the notion of common cause, providing an analysis not only in terms of classical probability measure spaces, which is typical in the available literature, but in quantum probability theory as well. The authors provide numerous open problems to further the debate and encourage future research in this field.