

1. Record Nr.	UNINA9910778151303321
Autore	Shrum Wesley <1953->
Titolo	Structures of scientific collaboration // Wesley Shrum, Joel Genuth, Ivan Chompalov
Pubbl/distr/stampa	Cambridge, Mass., : MIT Press, ©2007
ISBN	1-282-09882-9 9786612098826 0-262-28358-1 1-4294-8079-3
Descrizione fisica	xi, 280 p. : ill
Collana	Inside technology
Altri autori (Persone)	GenuthJoel ChompalovIvan
Disciplina	530.072/4
Soggetti	Research - International cooperation Physics - Research - International cooperation Intellectual cooperation Academic-industrial collaboration
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references (p. [259]-273) and index.
Nota di contenuto	Introduction -- Formation -- Magnitude -- Organization -- Technology and interdependence -- Trust, conflict, and performance -- Conclusion.
Sommario/riassunto	How technology and bureaucracy shape collaborative scientific research projects: an empirical study of multiorganizational collaboration in the physical sciences. Collaboration among organizations is rapidly becoming common in scientific research as globalization and new communication technologies make it possible for researchers from different locations and institutions to work together on common projects. These scientific and technological collaborations are part of a general trend toward more fluid, flexible, and temporary organizational arrangements, but they have received very limited scholarly attention. Structures of Scientific Collaboration is the first study to examine multi-organizational collaboration systematically, drawing on a database of 53 collaborations documented for the Center for History of Physics of the American Institute of Physics. By integrating quantitative

sociological analyses with detailed case histories, Shrum, Genuth, and Chompalov pioneer a new and truly interdisciplinary method for the study of science and technology. Scientists undertake multi-organizational collaborations because individual institutions often lack sufficient resources--including the latest technology--to achieve a given research objective. The authors find that collaborative research depends on both technology and bureaucracy; scientists claim to abhor bureaucracy, but most collaborations use it constructively to achieve their goals. The book analyzes the structural elements of collaboration (among them formation, size and duration, organization, technological practices, and participant experiences) and the relationships among them. The authors find that trust, though viewed as positive, is not necessarily associated with successful projects; indeed, the formal structures of bureaucracy reduce the need for high levels of trust--and make possible the independence so valued by participating scientists.

---