1.	Record Nr.	UNINA9910741170203321
	Autore	Potiron Katia
	Titolo	From fault classification to fault tolerance for multi-agent systems / / Katia Potiron, Amal El Fallah Seghrouchni, Patrick Taillibert
	Pubbl/distr/stampa	London ; ; New York, : Springer, c2013
	ISBN	1-4471-5046-5
	Edizione	[1st ed. 2013.]
	Descrizione fisica	1 online resource (viii, 80 pages) : illustrations (some color)
	Collana	SpringerBriefs in computer science, , 2191-5768
	Altri autori (Persone)	El Fallah SeghrouchniAmal TaillibertPatrick
	Disciplina	006.3
	Soggetti	Multiagent systems Fault-tolerant computing
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	"ISSN: 2191-5768."
	Nota di bibliografia	Includes bibliographical references.
	Nota di contenuto	Preface -- Introduction -- Multi-Agent System Properties -- Fault Classification -- Refinement of the Fault Classification for MAS -- Fault Tolerance for MAS Specific Faults -- Fault Classification Attributes as an Ontology to Build Fault Tolerant MAS -- Conclusion.
	Sommario/riassunto	Faults are a concern for Multi-Agent Systems (MAS) designers, especially if the MAS are built for industrial or military use because there must be some guarantee of dependability. Some fault classification exists for classical systems, and is used to define faults. When dependability is at stake, such fault classification may be used from the beginning of the system's conception to define fault classes and specify which types of faults are expected. Thus, one may want to use fault classification for MAS; however, From Fault Classification to Fault Tolerance for Multi-Agent Systems argues that working with autonomous and proactive agents implies a special analysis of the faults potentially occurring in the system. Moreover, the field of Fault Tolerance (FT) provides numerous methods adapted to handle different kinds of faults. Some handling methods have been studied within the MAS domain, adapting to their specificities and capabilities but increasing the large amount of FT methods. Therefore, unless being an expert in fault tolerance, it is difficult to choose, evaluate or compare fault tolerance methods, preventing a lot of developed applications

from not only to being more pleasant to use but, more importantly, from at least being tolerant to common faults. From Fault Classification to Fault Tolerance for Multi-Agent Systems shows that specification phase guidelines and fault handler studies can be derived from the fault classification extension made for MAS. From this perspective, fault classification can become a unifying concept between fault tolerance methods in MAS.