

1. Record Nr.	UNINA9910520096803321
Autore	Fujimoto Seiji
Titolo	Demographics of the Cold Universe with ALMA : From Interstellar and Circumgalactic Media to Cosmic Structures / / by Seiji Fujimoto
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2021
ISBN	9789811649790 9789811649783
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (163 pages)
Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5061
Disciplina	523.112
Soggetti	Astronomy Astrophysics Astronomy, Observations and Techniques
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Data & Reduction -- Inter-Stellar Medium Scale I: Galaxy Size -- Inter-Stellar Medium Scale II: Galaxy Morphology -- Circum-Galactic Medium Scale: Metal-Enriched Gas Halo -- Cosmic Structure Scale: Number Density and Clustering -- Discussion -- Conclusion -- Appendices.
Sommario/riassunto	This book presents the cold side of the Universe illustrated by the rest-frame, far-infrared emission with Atacama Large Millimeter/submillimeter Array (ALMA). The author constructed the largest-ever ALMA sample and dataset, which enables them to identify very faint, rest-frame, far-infrared dust continuums as well as the carbon fine-structure line emission from distant galaxies that have been missed in previous surveys. The observational findings described in this book reveal for the first time where and how much of the star formation, traced by the rest-frame far-infrared emission, is ongoing, from inter-stellar and circum-galactic media to cosmic structures. Moreover, since some of the findings are unexpected and as such challenge the current galaxy formation models, the book provides exciting questions that should be addressed in the next decades.