1. Record Nr. UNINA9910254608103321 Autore **Erroz-Ferrer Santiago** Titolo Morphology, Kinematics and Star Formation Across the Hubble Sequence of Galaxies / / by Santiago Erroz-Ferrer Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 **ISBN** 3-319-26398-6 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (207 p.) Collana Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053 530 Disciplina Soggetti Astronomy Astronomy—Observations **Astrophysics** Astronomy, Observations and Techniques Astrophysics and Astroparticles Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali "Doctoral thesis accepted by the University of La Laguna, Spain." Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Introduction -- Massive star formation in galaxies with excess UV emission -- H kinematics of S4G spiral galaxies: The data --Streaming motions in the spiral galaxy NGC 864 -- Non-circular motions and star formation in S4G galaxies -- Inner rotation curves --Conclusions and future work. Sommario/riassunto This thesis discusses the evolution of galaxies through the study of the morphology, kinematics, and star formation properties of a sample of nearby galaxies. The main body of the thesis describes the kinematic observations with the GHaFAS Fabry-Perot instrument on the William Herschel Telescope of a sample of 29 spiral galaxies. The work is closely related to the Spitzer Survey of Stellar Structure in Galaxies, and uses the mid-infrared data of that survey to determine key parameters of the galaxies studied. From these data, important results are obtained on streaming and other non-circular motions in galaxies, on the distribution and rates of star formation, and on how correlations of these parameters and of the rotation curve shape with basic galaxy

parameters yield clues on the evolutionary processes taking place in