Preface

The publication of the *morphology–density* relation by Alan Dressler in 1980 brought into the limelight the role played by environment in the formation and evolution of galaxies. During the following three decades, we have learned that galaxy evolution is driven by both intrinsic processes (typically controlled by galaxy mass, also known as *nature*) and environmental effects (usually referred to as *nurture*). At present, we still have to understand the details of the interplay between nature and nurture. The advent of large, homogeneous redshift surveys has been a major step forward in this direction, since it has allowed us to quantify environment in a more consistent way, sampling a large variety of galaxy environments (from voids to massive galaxy clusters, through different size galaxy groups). Large galaxy surveys at different wavelengths have enabled us to study how different galaxy properties (e.g. morphology, star formation, stellar populations, AGN activity) depend on environment. The comparison between the observations and the predictions from state-of-the-art semi-analytical models and numerical simulations of galaxy formation in a cosmological context has proven essential in disentangling the mass assembly history from the star formation history of galaxies, in connection with the environment where they live.

The year 2010 represents the 30th anniversary of the *morphology–density* relation, and we took this opportunity to organize the symposium *Environment and the Formation of Galaxies: 30 years later*, with the purpose of establishing the impact of environment on the evolution of galaxies and its dependence on look-back time. Special emphasis was given to the physical mechanisms that are responsible for transforming galaxies once they are accreted by a group or a cluster (e.g. ram pressure and tidal stripping), including the observable imprint left in the galaxy HI distribution. Other major topics of the symposium were the environmental dependence of galaxy properties at $z \geq 1$ and the implementation of environmental effects in cosmological models of galaxy formation and evolution.

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Heidelberg and London *Anna Pasquali*
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