

# Preface

This volume “Experimental Techniques for Strongly Correlated Systems”, together with the set “Methods and Techniques for Strongly Correlated Systems” it belongs to, builds upon the long-standing experience we have acquired in organizing the “Trainings Course in the Physics of Strongly Correlated Systems” in Vietri sul Mare (Salerno, Italy) since 1996 and our scientific working experience in the field. Running a school for advanced graduate students and junior postdocs, we have realized that this field of condensed matter and solid-state physics lacked in adequate textbooks and that the whole strongly correlated systems community would benefit from a systematic exposition of the field. The present volume consists of a series of monographs on the most relevant experimental techniques currently used to tackle the hoary problem of correlations. The authors have been selected, the major experts in the field have been consulted, among the most world-wide famous scientists who have invented or greatly helped improve/spread the specific technique in the community. Each chapter presents the method in a pedagogical way and contains at least one case study where the method has proved to give a substantial leap forward in the knowledge and a very rich bibliography. The book is mainly intended for neophytes, who will find in one single volume all the pieces of information necessary to choose and start learning an experimental technique. Also more experienced researchers would benefit from this volume as they would gain a deeper understanding of what any single technique can really tell them and what cannot. Accordingly, the accent is more on the ideas behind (origins, pros/cons, perspectives, ...) than on the technical details, which are left to the comprehensive bibliography.

We wish to thank all the authors of this volume as they all joined this editorial project with enthusiasm and provided the whole community with what we hope will become a relevant resource for any researcher in the field as a comprehensive and extended reference.

Salerno, Italy  
June 2014

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Strongly Correlated Systems

Experimental Techniques

Avella, A.; Mancini, F. (Eds.)

2015, XXXIII, 302 p. 117 illus., 74 illus. in color.,

Hardcover

ISBN: 978-3-662-44132-9