

## TALAGRAND endorsement quotes for prelims and website

"This book accomplishes the following impossible task. It explains to a mathematician, in a language that a mathematician can understand, what is meant by a quantum field theory from a physicist's point of view. The author is completely and brutally honest in his goal to truly explain the physics rather than filtering out only the mathematics, but is at the same time as mathematically lucid as one can be with this topic. It is a great book by a great mathematician."

-- Sourav Chatterjee, Stanford University

"Talagrand has done an admirable job of making the difficult subject of quantum field theory as concrete and understandable as possible. The book progresses slowly and carefully but still covers an enormous amount of material, culminating in a detailed treatment of renormalization. Although no one can make the subject truly easy, Talagrand has made every effort to assist the reader on a rewarding journey through the world of quantum fields."

-- Brian Hall, University of Notre Dame

"A presentation of the fundamental ideas of QFT in a manner that is both accessible and mathematically accurate seems like an impossible dream. Well, not anymore! This book goes from basic notions to advanced topics with patience and care. It is an absolute delight to anyone looking for a friendly introduction to the beauty of QFT and its mysteries."

-- Shahar Mendelson, Australian National University

"I have been motivated to try and learn about quantum field theories for some time, but struggled to find a presentation in a language that I as a mathematician could understand. This book was perfect for me: I was able to make progress without any initial preparation, and felt very comfortable and reassured by the style of exposition."

-- Ellen Powell, Durham University

"In addition to its success as a physical theory, Quantum Field Theory (QFT) has been a continuous source of inspiration for mathematics. However, mathematicians trying to understand QFT must contend with the fact that some of the most important computations in the theory have no rigorous justification. This has been a considerable obstacle to communication between mathematicians and physicists. It is why despite many fruitful interactions, only very few people would claim to be well versed in both disciplines at the highest level.

"There have been many attempts to bridge this gap, each emphasizing different aspects of QFT. Treatments aimed at a mathematical audience often deploy sophisticated mathematics. Michel Talagrand takes a decidedly elementary approach to answering the question in the title of his monograph, assuming little more than basic analysis. In addition to learning what QFT is, the reader will encounter in this book beautiful mathematics that is hard to find anywhere else in such clear pedagogical form, notably the discussion of representations of the Poincaré group and the BPHZ Theorem. The book is especially timely given the recent resurgence of ideas from QFT in probability and partial differential equations. It is sure to remain a reference for many decades."

-- Philippe Sosoe, Cornell University