

# Preface

Research became part of our lives in the early stages of our undergraduate course when we had the opportunity to be involved with studies on biomechanics of human motion. The nature of motion at that time involved cycling and questions on how we could improve the configuration of bicycle components in order to enhance performance of cyclists was around. We ended learning more on the biomechanics of cyclists than we could imagine but there were always lots of questions that no study we found on the literature could explain. For that reason we kept going towards a clearer understanding on why and how humans could take their best during bicycle riding.

More than 10 years after that time, we had the opportunity to provide our perspective on the biomechanics of cycling. We do not expect that this book will become the final word, although some experts believe that research on cycling biomechanics is a “dead issue.” A counter argument is that day after day cyclists come up with different strategies on their pedaling that we cannot easily explain how it works. We then go back to our laboratories and do research to see how much effect a novel setting could have on varying parameters associated to performance or injury prevention. In the end, I am not expecting to see a final word because creation of new methods is potentially a continuum. We only expect that cycling in future years could elicit a better interaction between cyclists and their bicycles then in the past.

We expect that this book should provide a primary source for new students in the field of cycling biomechanics and hopefully an update for those who have been involved for a long time. The aim was to provide an overview of the complex interaction between the bicycle and the human body and we are certain that there is more to say on cycling biomechanics apart from the contents in this book.

To accomplish this goal, Dr. Felipe Carpes, a very long-term fellow and friend, helped me to take together ideas and content in order to have a book that could be used as a stepping stone for those who are willing to get fascinated with the biomechanics of cycling. We also had important help from fellows who are co-authors of various chapters. Without their support we would not have completed the hard work of finishing this book.

Finally, we hope this book improves the link between practice and science in cycling, given that most of the time there is a long bridge between empirical knowledge of cyclists and coaches and evidence from research in this field.

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