

Preface

I have attempted in this book to present a historical account of the Cornell Electron Storage Ring and its main detector facility CLEO from their beginnings in the late 1970s until the end of data collection at particle energies above the threshold for B meson production in June 2001. The CESR electron–positron collider was the culmination of a series of electron accelerators constructed at the Cornell Laboratory of Nuclear Studies starting in 1945. The measurements made on the products of the e^+e^- collisions were performed with the multipurpose CLEO apparatus, built and operated by the CLEO collaboration, consisting of about 200 faculty, staff and graduate students from over 20 universities.

My account is based mainly on my recollections as a participant and on documents readily available to me. It is therefore unavoidably biased, and probably emphasizes unduly events in which I was personally involved. I have tried to be systematic and as complete as possible, given the constraints of length, but there are surely omissions, inaccuracies, and lapses in my memory. An earlier version was written mainly for physicists, particularly for new members of the Cornell Laboratory or the CLEO collaboration who may be curious about how we got to where we are. In this book version I have tried to broaden the accessibility to a wider audience. Frequently used terms are collected in a glossary. Much of the detailed information, only of interest to particle physicists, is presented in the appendix.

I will start in the first chapter with a quick and rather superficial review of the major events in particle and accelerator physics in the decades preceding the conception of CESR and CLEO. Readers who would like to learn more about the players and events of 1930–1980 period can consult the earliest of the listed references. Particle physicists can skip to the second chapter.