

Preface

Charles Olivier and the Rise of Meteor Science was to be a centennial history of the American Meteor Society (AMS), from 1911 to 2011. However, when I investigated the AMS' historical papers and myriads of related published documents, I realized that there was an intriguing saga that deserved to be told. Instead of the centennial history, I decided to pursue the emergent story by focusing on a biography of its founder, Dr. Charles P. Olivier. A professional astronomer, I wondered why Olivier invited amateur astronomers to be his colleagues in a research project. When I learned that the amateurs' observational contributions to meteor science were so substantial, it seemed just that they receive biographies too. So, biographical inquiries about them were added to the research plan for a history that spanned the years 1911–1936.

The book's outline became more complicated in the course of tracing Olivier's career history; research revealed a fascinating schism in the professional astronomical community. It needed to be described to provide context for his career. So, the book's plan now included Olivier and AMS members' biographies plus a story about the fissioning astronomical profession. That is how the AMS' history, originally an uncomplicated centennial one, became more complex even though shortened by 75 years. I believe the resulting story will interest readers of astronomical history and of science in general.

Charles Olivier and the Rise of Meteor Science is filled with biographies and some description of my background to write them follows. Before retirement, I practiced clinical and forensic psychology which required inquiries into people's histories. Biographical investigation was a fundamental aspect of my trade. It was natural for me to use the same skill set to learn about the figures in this book. I knew astronomers' lives were fascinating, having been introduced to them by Joseph Ashbrook's monthly column, *Astronomical Scrapbook*, in *Sky and Telescope* magazine. Opportunities to write brief biographies of Charles Olivier, for the *Biographical Encyclopedia of Astronomers* and the AMS' Web site, convinced me that I shared Ashbrook's enthusiasm for chronicling professional astronomers' careers. I became fascinated by amateurs' life stories; the first biographies I wrote were of Edwin F. Sawyer, a Boston meteor and variable star observer and Lewis

Swift the comet discoverer. Then in 2012 I began a blog, *Skywatchers* as a “test-bed” for writing biographies of forgotten amateur astronomers; it was where I practiced describing key incidents in the careers of citizen scientists that made contributions to astronomical knowledge. With this writing background, it was a natural progression to this book which showcases Professor Olivier’s career from 1899–1936 and along with his scores of amateur astronomers’ who volunteered to produce the data he analyzed and published.

The reader will see that the second half of the book contains AMS members’ biographies. These were separated from the narratives about Olivier and the AMS’ exploits in the first half of the book in order to preserve continuity of the historical account. Placement in the book’s last half should not be interpreted to suggest that the amateurs’ roles were secondary to the AMS saga. All of them devoted three or more years’ effort to AMS research projects and, in fact, contributed the results which filled Dr. Olivier’s meteor publications. These meteor-watching volunteers, active from 1911–1936, have in most AMS reports been identified only by their initials and family names, but here are portrayed in detailed biographies.

Professional psychology and writing biographies were not my only preparation to write *Charles Olivier and the Rise of Meteor Science*. I have been an amateur astronomer for most of the past 60 years. I have watched lunar and solar eclipses, drawn the moon and planets’ surfaces seen through telescopes, timed disappearances of stars behind the dark edge of the moon, and spent 1,000 hours recording more than 9,000 meteors. Like the amateurs in Olivier’s day, and their successors today, I have reported my observations’ results to professional astronomers. I have drawn on my observational experiences while writing *Charles Olivier and the Rise of Meteor Science* and I hope I have successfully described what it is like to be under a dark starry sky patiently watching for “shooting stars.”

Research preparation for this book has occupied the past 15 years and continued even as I wrote it in the last five. I have spent days prowling for information at three university libraries, at an observatory’s archives, and at the Library of Congress. I learned a great deal about AMS observational methods and campaigns by studying observers’ reports filed in the AMS’ archives. I devoted many hours to perusing Olivier’s early monographs and the historical vignettes he included in his columns in *Popular Astronomy*. Invaluable insights about Charles Olivier’s life came from interviews with his daughters and other family members. Olivier’s former graduate student assistants and senior AMS members who knew him personally provided further insights about him. Finally, conversations with adult children of the 1930s era observers gave me fascinating information about their fathers’ lives that was not available anywhere else. The contents of this book have been enriched by all of these resources.

Charles Olivier and the Rise of Meteor Science may serve as your introduction to gravitational (or dynamical) astronomy, one whose accomplishments are not properly celebrated today. Meteor science is a branch of gravitational astronomy because meteors travel about the sun in orbits and a scientist needs to understand how the planets’ gravitational fields influence those orbits. Gravitational astronomy is the oldest branch of scientific astronomy begun by Isaac Newton, Gottfried

Leibniz, and Pierre-Simon Laplace in the seventeenth and eighteenth centuries. It is the one that predicts when a comet like Halley's is expected to return to our sky, and its mathematics pinpointed the sky location where the planet Neptune was discovered, it also guided mankind's exploration voyages to the moon and has sent robot rovers to land on the surfaces of a comet, an asteroid, and the planets Venus and Mars. If *Charles Olivier and the Rise of Meteor Science* helps acquaint the reader with this unfamiliar and under-appreciated branch of astronomy, it will have served a useful purpose.

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<http://www.springer.com/978-3-319-44517-5>

Charles Olivier and the Rise of Meteor Science

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2017, XXXII, 497 p. 29 illus., 1 illus. in color., Hardcover

ISBN: 978-3-319-44517-5