
Astrophysics tends to explore new spectral regimes by first observing the Sun. The infrared is not a new window, being first opened to the Sun by William Herschel, but space platforms and new ground-based technology currently bring the transition from glimpse to detailed diagnostic observation. The US National Solar Observatory plays a major role in the window opening and hosted a IAU Symposium at a timely moment to assess the state of this budding field. These proceedings (less timely in that their production took too long) furnish an excellent overview with a good balance between instrumentation, observation, and interpretation. There is a special section on the 1991 eclipse which so fortunately passed directly over Mauna Kea; another section, on magnetic fields and infrared magnetometry, displays the major promises of infrared solar research. The spirit of the book illustrates “the joy of discovery” in an otherwise mature science, as noted by R. W. Noyes in his preface. The book belongs in every astrophysical library and is also of interest to atomic spectroscopists.

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During the first half of the twentieth century the advance of astronomy was greatly stimulated by the construction of several large telescopes in the United States. The story of the discoveries made with these telescopes and how they enabled American scientists to take a leading role in astronomical research has often been told. However, the story of the men who designed these instruments, raised the necessary funds and finally constructed them has largely been unknown.

In this book, the author (who earlier published on the history of the Lick Observatory and on the career of James E. Keeler) tells the story of George Willis Ritchey (1864–1945) and George Ellery Hale (1868–1938), the two men whose complex and intertwining careers were mainly responsible for these feats of optical and mechanical workmanship. It relates how these men, both with very different