



Near the Horizon: An Invitation to Geometric Optics (Hardback)

By -

Mathematical Association of America, United States, 2017. Hardback. Condition: New. Language: English . Brand New Book. Several optical phenomena can occur when the sun is near the horizon, some of which can actually be seen, for instance as a dark strip in the middle of the solar disk, or as a green flash. These are a result of the way the atmosphere affects the geometry of light rays. In this book, Broer uses the Fermat principle to deduce laws for refraction and reflection. By expressing these as conservation laws, he can handle both the case of inhomogeneous layers of air and the case of continuous variation in the refraction index. Building from this elementary theory, more advanced mathematical theories are discussed, including how the Fermat Principle leads to a Riemannian metric whose geodesics are the paths of light rays, thus demonstrating the physical applicability of Riemannian geometry. Intended for teachers and professors to enlighten their courses, or for students and researchers in mathematics, science and engineering.

DOWNLOAD



READ ONLINE

[3.29 MB]

Reviews

Extremely helpful for all class of folks. I really could comprehend almost everything using this written e publication. You will not feel monotony at at any time of the time (that's what catalogs are for about in the event you check with me).

-- Prof. Melyna Dooley V

This book is worth getting. Yes, it really is enjoy, continue to an amazing and interesting literature. You can expect to like how the author publish this book.

-- Prof. Cindy Paucek I