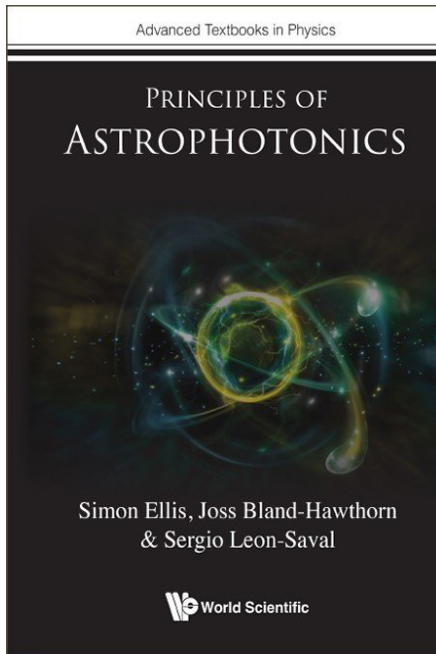


## PRINCIPLES OF ASTROPHOTONICS



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### ABOUT THE BOOK

Astrophotonics is the application of photonics to astronomical instrumentation. It is a rapidly developing field that takes a new approach to instrumentation, in which the bulk optics of traditional instruments, such as lenses, mirrors, and diffraction gratings, are replaced with devices embedded within waveguides. This enables instruments that are smaller, modular, more stable, and most excitingly, with optical capabilities not possible with traditional instruments.

Astrophotonics has reached a stage of development where many prototype devices are now being tested on sky, and the first fully-fledged instruments incorporating photonic devices are now being used for observations. The field is thus transitioning from one of instrumental research and development to mainstream observational astrophysics.

This is the first book focussed on astrophotonics, written by three experts in the field. Beginning with a sound introduction to the basic principles of astrophotonics, it is intended to communicate the current status, potential, and future possibilities of astrophotonics to the wider astronomical, optics and photonics communities.

### READERSHIP

Final year undergraduate, or graduate students, researchers and practitioners in the fields of astronomy, astrophysics, astronomical instrumentation, and photonics.

## CONTENTS

### Concepts of Astronomical Instrumentation and Photonics:

- Introduction
- Astronomical Optics
- Astronomical Instruments
- Propagation of Light in Waveguides
- Waveguides in Practice
- Coupling Light into Waveguides

### Astrophotonic Devices:

- Interferometry
- OH Suppression
- Photonic Spectrographs
- Wavelength Calibration

### Future Astrophotonics:

- Unexploited Photonics
- The Future of Astrophotonics

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