How Do You Find an Exoplanet? (Princeton Frontiers in Physics)

By John Asher Johnson

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Alien worlds have long been a staple of science fiction. But today, thanks to modern astronomical instrumentation and the achievements of many enterprising observational astronomers, the existence of planets outside our solar system?also known as exoplanets?has moved into the realm of science fact. With planet hunters finding ever smaller, more Earth-like worlds, our understanding of the cosmos is forever changed, yet the question of how astronomers make these discoveries often goes unanswered.

How Do You Find an Exoplanet? is an authoritative primer on the four key techniques that today's planet hunters use to detect the feeble signals of planets orbiting distant stars. John Johnson provides you with an insider’s perspective on this exciting cutting-edge science, showing how astronomers detect the wobble of stars caused by the gravitational tug of an orbiting planet, the slight diminution of light caused by a planet eclipsing its star, and the bending of space-time by stars and their planets, and how astronomers even directly take pictures of planets next to their bright central stars.

Accessible to anyone with a basic foundation in college-level physics, *How Do You Find an Exoplanet?* sheds new light on the prospect of finding life outside our solar system, how surprising new observations suggest that we may not fully understand how planets form, and much more.

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Editorial Review

Review
One of *Choice*'s Outstanding Academic Titles for 2016

"Johnson's enthusiasm for his vibrant field is palpable in this valuable, concise guide for amateur astronomers and anyone else not afraid of a few technicalities."**--Lewis Dartnell, *New Scientist***

"Johnson . . . takes us on an enjoyable journey to the world of exoplanet hunters. . . . An excellent book for anyone interested but also for astronomy students if their curriculum includes one?semester course in exoplanets."**--*Read about Science***

"This little red book is a thorough yet very understandable introduction to one of the hottest topics in astronomy--planets outside the solar system. Johnson, one of the leading scientists in the field, has created a great primer for undergraduate students wishing to gain enough knowledge to undertake a project or perhaps win an internship in the field."**--*Choice***

From the Back Cover

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"*How Do You Find an Exoplanet?* presents an engaging overview of modern exoplanetary detection techniques. John Johnson brings a firsthand narrative to this remarkable scientific detective story, while explaining the technical fine points at an accessible level."**--Greg Laughlin, University of California, Santa Cruz**

About the Author
John Asher Johnson is professor of astronomy at Harvard University.

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