

## NEW BOOKS & MEDIA

### Stephen Hawking

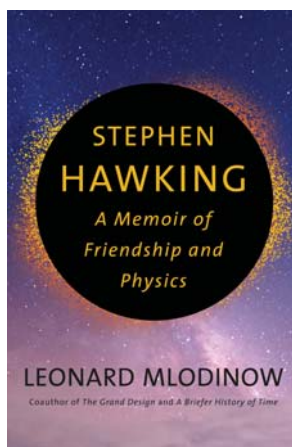
A Memoir of Friendship and Physics

Leonard Mlodinow

Pantheon Books, 2020. \$25.00

Theoretical physicist and writer Leonard Mlodinow worked with Stephen Hawking on two books, *A Briefer History of Time* (2005) and *The Grand Design* (2010). In *Stephen Hawking: A Memoir of Friendship and Physics*, Mlodinow reflects on their collaboration and on Hawking's remarkable work as a physicist. He also writes candidly about Hawking's life with amyotrophic lateral sclerosis; by the time the two met in 2003, Hawking was using a wheelchair, typing on a computer to speak, and living with the support of several caregivers. Mlodinow's passages about Hawking's personality, including the challenges of working with his deep-rooted perfectionism and his intense dislike of being compared with fellow Cambridge professor Isaac Newton, are full of affection, humor, and insight.

—MB



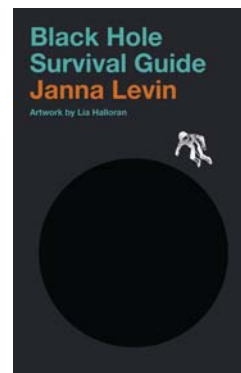
### Black Hole Survival Guide

Janna Levin

Knopf, 2020. \$20.95

Both a reflection on what is known about black holes and speculation on what is not, *Black Hole Survival Guide* takes the reader on a journey beyond the event horizon. On this thoughtful and imaginative trip, cosmologist Janna Levin explores the properties of black holes and delves into topics such as cosmology, quantum mechanics, the theory of relativity, and entanglement. The use of the word "survival" in the title is a misnomer, however; because of a black hole's gravitational pull, radiation, and warping of spacetime, any foray into one would necessarily be one way—and deadly.

—CC



### Neutron Stars

The Quest to Understand the Zombies of the Cosmos

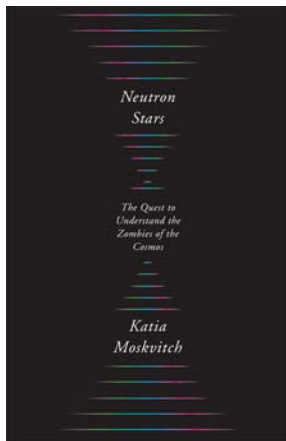
Katia Moskvitch

Harvard U. Press, 2020. \$29.95

When a dying star larger than the Sun explodes in a supernova, gravitational collapse compresses the stellar material into a dense neutron star some 20 km in diameter. In *Neutron Stars*, science journalist Katia Moskvitch recaps the many astronomical observations that've been made with the help of those remnant stars. From the measurement in 2007 of fast radio bursts—whose origins still remain somewhat mysterious—to the detection in 2017 of gravitational waves by the LIGO and VIRGO observatories, the stories surrounding those

discoveries are likely to appeal to just about anyone interested in astronomy.

—AL



### How to Avoid a Climate Disaster

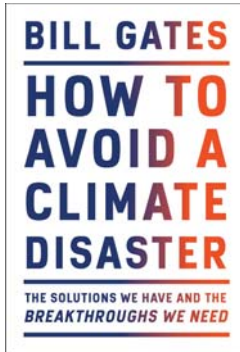
The Solutions We Have and the Breakthroughs We Need

Bill Gates

Knopf, 2021. \$26.95

Books on climate change are often full of ominous warnings about what the future will look like if humanity does not change its ways. Billionaire philanthropist Bill Gates briefly outlines such a scenario in his new book *How to Avoid a Climate Disaster*. Spoiler alert: It's not pretty. However, the book focuses primarily on presenting what Gates calls a "concrete" plan for reducing net carbon emissions to zero across the globe by 2050 or shortly thereafter. The proposal involves incentivizing a broad shift to green technologies that are already mature, like electric vehicles and solar panels, while simultaneously investing in new technologies like direct carbon capture and zero-carbon cement and steel. Gates's plan is an optimistic yet realistic how-to guide to solving a global crisis. Unfortunately, he offers no solution to combating disinformation spread by climate change deniers, which is likely the biggest challenge to climate action.

—RD



### A New History of the Future in 100 Objects

A Fiction

Adrian Hon

MIT Press, 2020. \$21.95 (paper)

Inspired by the BBC and the British Museum's *A History of the World in 100 Objects*, author Adrian Hon has created a fictional equivalent in which he imagines himself to be a curator in the year 2082 looking back on the 21st century.

His 100 futuristic objects encompass not just physical things like "deliverbots" and "smart drugs" but also software, technologies, world events, and so forth. For Hon, a game designer and the CEO and founder of gaming company Six to Start, the goal is not to try to predict the future but to imagine its possibilities, both good and bad, and in so doing gain a new perspective on the present. Originally published in 2013, the book has been updated with new and revised chapters.

—CC PT

