

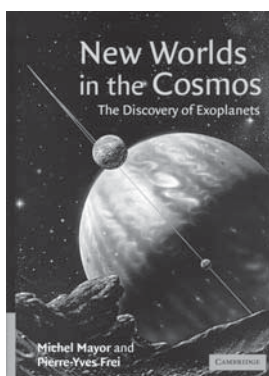
New worlds in the cosmos – the discovery of exoplanets

by Michel Mayor & Pierre-Yves Frei, translated by Boud Roukema

Cambridge University Press, 2003.
ISBN 0-521-81207-0. Pp xii + 248 (hbk),
£18.95.

This is the book I wanted to read: how Mayor and Queloz discovered 51 Pegasi B – the first of the exoplanets. I found out by page 20. It is fundamentally Michel Mayor's book, a lot of it being in the first person. The start is a touch slow, with preface, acknowledgments and some unnecessary scene-setting, then the pace quickens. There are occasional lapses: 'calibrating... instrument to eliminate... artefacts' – I know this means 'making sure it worked properly', but would a general reader? Mostly I liked the narrative, and the generosity with which the contributions of others was recorded.

There are quite a lot of scholarly quotes. As the book is a translation, there are some odd phrases: 'retrograde hesitations' of planets for example. More seriously, Herschel 'decided to construct a refracting Newtonian telescope': this should of course be a *reflecting* telescope, as the succeeding sentences show clearly. I was sur-



prised to see Chandrasekhar's limit quoted at 1.5 solar masses and stellar remnants described as neutron stars below that and black holes above. The Sigma Orionis cluster contains 'no star... older than 8 million years' but in the next paragraph it is '...5 million years old at the most'.

In chapter 2, you reach a brief, selective survey of astronomy from Greek to modern times. Although virtually all astronomical writers include this, I question its relevance in this instance. In contrast, the story of the finding of the modern planets, Uranus, Neptune and Pluto does give a feel for the search.

Most of the book describes the progress of the planet hunters, notably Marcy and Butler, as they find massive planets revolving unexpectedly close to stars. The discoveries of others get the same enthusiasm as the initial one by Mayor and Queloz. Some observations were not confirmed and the authors simply state this. They cover pulsar planets and brown dwarfs as well, and very informatively too.

The general reader might need to refer to the glossary (an index would be useful) but the cheerful style makes this a very approachable book. I am glad to have read it.

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Roger O'Brien teaches astronomy and cosmology (mostly for the Open University) and even manages a bit of observing from time to time.