

# Lonely planets: Billions drifting across our galaxy

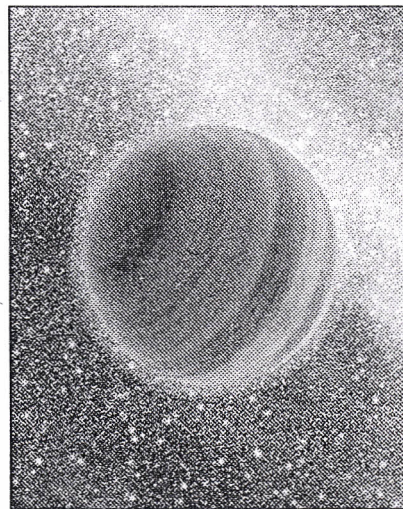
Dennis Overbye

**A**stronomers said on Wednesday that space was littered with hundreds of billions of planets that had been ejected from the planetary systems that gave them birth and either were going their own lonely ways or were only distantly bound to stars at least 10 times as far away as the Sun is from the Earth.

There are two Jupiter-mass planets floating around for each of the 200 billion stars in the Milky Way galaxy, according to measurements and calculations by an international group of astronomers led by Takahiro Sumi, of Osaka University in Japan, and reported in the journal *Nature*.

"It's a bit of a surprise," said David Bennett, a Notre Dame astronomer who was part of the team. Before this research, it was thought that only about 10 or 20% of stars harbored Jupiter-mass planets. Now it seems as if the planets outnumber the stars.

Alan Boss of the



## LONE RANGERS

Carnegie Institution in Washington said, "It means there are a lot more gas giants out there than previous estimates." This, he added, has important consequences for theories of how such planets form.

Planetary astronomers say the results will allow them to tap into a whole new unsuspected realm of exoplanets — as planets outside our own solar system are called — causing scientists to re-evaluate how many there are, where they are and how they are created. NYT NEWS SERVICE