Subject: Integral Tree "gravity"
Posted by duntemann.wbst[1] on Tue, 04 Jun 2013 04:10:27 GMT
View Forum Message <> Reply to Message

Message-ID:
Date: Thu, 27-Sep-84 08:31:51 EDT
Article-I.D.: sri-arpa.12418
Posted: Thu Sep 27 08:31:51 1984
Date-Received: Sun, 30-Sep-84 03:51:01 EDT
Lines: 33

The "gravity" present at the tufts of the integral trees is an inertial effect, not a force at all in the sense that gravity is a force. The trees orbit Voy, and the inner end of the tree would (if it were free) orbit Voy more quickly than the outer end. The whole tree (being a single object) settles into a compromise orbit with the midpoint of the tree in freefall orbit and the two tufts "straining" to break free so that the inner tuft could orbit more quickly and the outer tuft more slowly.

The people living at the tufts experience "gravity" because the tufts are preventing them from orbiting freely. If you "fall off" one of the tufts, you immediately go into a proper freefall orbit and move rapidly away from the tuft.

It's a bizarre, beautiful concept that was utterly wasted on the total banality of the story, which was a travelog with some shootemup here and there to keep things interesting. This could have been another Ringworld, but I suspect NIven wasn't quite sure what to do with his creation once he had worked out all the math.

It needed a high tech civilization and some aliens. Niven doesn't do well with primitives, and his human characters are usually the weakest.

Sidenote: The tidal forces of the Voy system are the same as the tidal forces which bedeviled our buddy Beowulf Shaeffer when he spun around the Neutron Star, and the tidal forces from the ball of neutronium which tipped off Louis Wu that it was NOT a Slaver stasis box in "There is a Tide." Niven is fascinated by tides. One wonders how much more he can do with them...

--Jeff Duntemann duntemann.wbst@xerox