

Stellar Metamorphosis: Super Earths and the DTA Symposium VIII in Toyko, Japan

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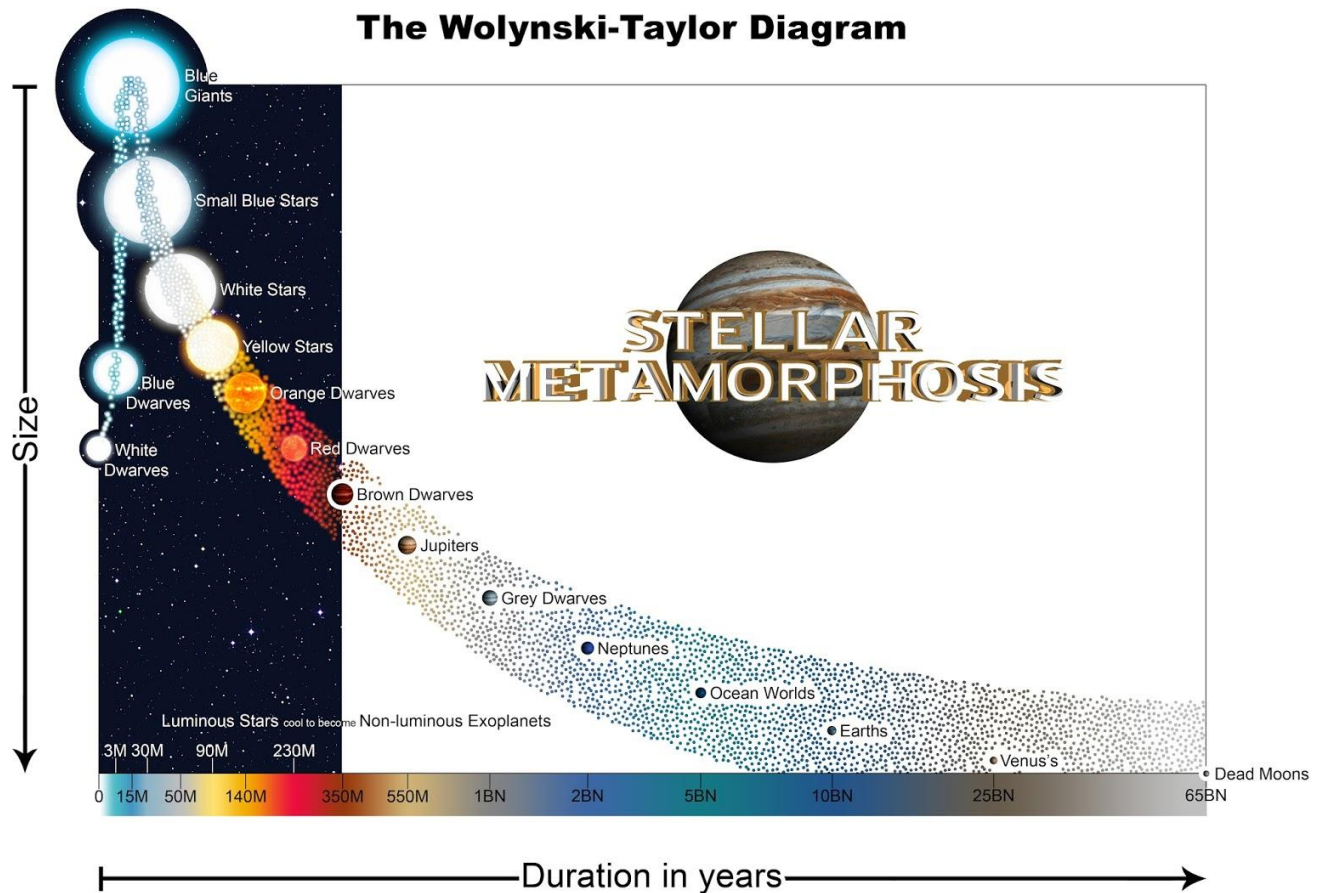
Abstract: Astronomers will be meeting at the Challenge to Super-Earths and Their Atmospheres, DTA SYMPOSIUM VIII from 6 - 8 March 2018 National Astronomical Observatory of Japan (NAOJ) in Tokyo, Japan. There they will discuss and explore the linkages between bulk compositions of super-Earths and their formation pathways. The purpose is to promote collaborations between researchers with different perspectives. This meeting will not lead to any new perspectives though. Explanation is provided as well as the method for which super-Earths and Neptunes are formed. They are simply evolving/evolved stars.

It is widely accepted by researchers around the world and taught to even elementary school students that planets and stars are mutually exclusive.

<http://gsjournal.net/Science-Journals/Essays-Astrophysics/Download/4569>

This is the number one problem with astrophysics and astronomers to date. They are still trying to force past ideas to make sense, when it is clear the past ideas are blocking understanding. Stars and planets (exoplanets) including super-Earths and Neptunes were never mutually exclusive. They are simply stars at different stages to their evolution. The super-Earths are just more evolved than the Neptunes. Here is a simple graph showing where they are located on the next page:

The Wolynski-Taylor Diagram



As the reader can see, the atmosphere of a Neptune or Super Earth is simply the leftover atmosphere of previous stages of evolution. That is how atmospheres are formed in these objects. As well, it is also clear that many super Earths are ocean worlds. They can be described by their radius as well, given they no longer radiate strongly in the visible spectrum as “gas dwarfs”, “water worlds” and “pre-Earths”, which are right below Neptunes, as outlined by Daniel Archer:

<http://vixra.org/pdf/1712.0460v1.pdf>

Their radii are in-between .035 solar radii and .0134 solar radii. Of course this is a round about estimate and these numbers may change, but they give a good approximation for the objects that will be observed by the TESS telescope. As well, the observed populations should increase massively as they are extremely abundant in the galaxy, even though water worlds, pre-Earths and gas dwarfs are not in abundance in our solar system. As well, from Neptunes on, all the objects that are those smaller sizes as opposed to their younger, hotter counterparts are at least 2 billion years old. The Japanese researchers should read this and design their atmospheric formation theories based on it. Homepage for the meeting: <http://th.nao.ac.jp/meeting/dta2018/index.html>