The 1600 Kelvin Gap in Astrophysics

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Abstract: In the accepted astronomy literature, and collected, publicly disbursed data there is a large temperature gap in the young stars which host older stars. It is apparent that specific data is ignored so that accepted models and theories do not receive unwanted attention by critical eyes. A prediction is therefore made concerning the presence of evolved stars (planets/exoplanets) around younger stars between the temperature range 540 – 2100 Kelvin, of which no public exoplanet data exists.

CFBDS1458b and 2M 044144b orbit their respective host stars of temperatures 540 Kelvin and 2100 Kelvin, this meaning the former is a brown dwarf and the latter a M-type red dwarf. What should concern the reader is that the vast majority of "exoplanets" (evolved stars) found only orbit stars with temperatures outside of a 1,600 Kelvin gap. How exactly does a system form around "1" brown dwarf with the hundreds of thousands of light curves measured, skip the vast range of possible stellar temperatures between 540 and 2100 Kelvin and then reappear at M-dwarf stage of stellar evolution? It means astronomers and the Kepler scientists are probably ignoring massive amounts of data. The author supposes they are ignoring this data because it mostly does not fit in their paradigm of "all star systems resemble ours". With a 5500-6500 Kelvin host star, and much smaller colder worlds orbiting it, there is no room for stars between temperatures 540 K and 2100 K. Stars with temperatures 1200 Kelvin are not acceptable to form systems, neither are stars of 1100 Kelvin or 900 Kelvin. One should wonder... the years resemble the Dark Ages of human thought, which is more less a coincidence of course, or is it?

Instead of ignoring data that does not fit into a pre-subscribed worldview, it is posed as a prediction in favor of stellar metamorphosis theory. Given hundreds of thousands of light curves being analyzed by Kepler, and outputting about 3,000+ star systems, given a temperature range of roughly 1,600 Kelvin, between 4,600 Kelvin through 6,200 Kelvin, there should be at the very least 3,000 plus additional systems that fall right inside of the 540 Kelvin 2100 Kelvin gap ignored by Kepler scientists and others. They might say, well, the hotter stars tend to be more massive, thus producing more of a viewing area for transit events, but this begs the question. Smaller, dimmer stars with effective temperatures of 540-2100 Kelvin would not blot out the smaller objects orbiting it, so they would be easier to see. I hope there are CCD's on the James Webb Space Telescope specially designed to see thermal light curves, because the sheer amount of evolved stars (exoplanets) which are going to be found orbiting dimmer brown dwarfs, auburn and red dwarf stars is going to make the Kepler data look like an insufficient picture. For proof this is what has happened, a screenshot of an open source exoplanet data page is pasted onto this document, as well as the exoplanet list on Wikipedia, that way there is a good record.

| | Fork me on GitHub |
|-------------------------|--------------------------------|
| Dpen E | xoplanet |
| С | atalogue |
| en source detabase of a | "discovered extrasolar planets |

| nets | Primary planet name ¢ | Radius [R _{earth}] ¢ | Temperature [K] ¢ | Number of stars in system |
|--------|-------------------------------|--------------------------------------|-------------------------|------------------------------------|
| lanets | <u>CFBDS 1458</u> <u>b</u> | N/A | 540 | 1 |
| | <u>2M 044144 b</u> | N/A | 2100 | 3 |
| | <u>2M 0746+20 b</u> | 10.64 | 2205 | 1 |
| | <u>2M 2140+16 b</u> | 10.10 | 2300 | 1 |
| | <u>2M 2206-20 b</u> | 14.27 | 2350 | 1 |
| 5 | TRAPPIST-1b | 1.11±0.04 | 2550±55 | 1 |
| 22 | TRAPPIST-1c | 1.05±0.05 | 2550±55 | 1 |

| CFBDSIR 1458+10 b | 0 | 6.5 | | 9855 | 2.6 | | | | imaging | 2011 | 23.1 | 0.02 | | 540 |
|----------------------|---|-----|------|------|-------|-------|-------|------|---------|------|-------|-------|-------|------|
| 2M 044144 b | 2 | 9.8 | | | | | | 1800 | imaging | 2010 | 145 | 0.018 | | 2100 |
| 2M 0746 b | 0 | 30 | 0.97 | 4640 | 2.897 | 0.487 | 138.2 | | imaging | 2010 | 12.21 | 0.12 | 0.089 | 2205 |
| 2M 2140 b | 0 | 20 | 0.92 | 7340 | 3.53 | 0.26 | 46.2 | | imaging | 2010 | 25 | 0.08 | 0.1 | 2300 |
| 2M 2206-20 b | 0 | 30 | 1.3 | 8686 | 4.48 | 0 | 44.3 | | imaging | 2010 | 26.67 | 0.13 | 0.11 | 2350 |
| 2M1207 b | 0 | 5 | | | | | | 1230 | imaging | 2004 | 59 | 0.025 | | 2550 |

As the reader will notice, there are no host stars in-between 540 Kelvin and 2100 Kelvin. They know how to hide very well apparently! Even though they were found with direct imaging, which is even more of an issue! They literally can see these objects, but still ignore them!