Errata

Observing Our Universe dated 07/17/2020

Page number: followed by its change

3: add to bottom: 7 References … 222

7: add: 7) all external references in the book have links available as directed here.

15: insert: at end of text:

Thermal radiation typically spans from infrared to ultraviolet frequencies. Our Sun's thermal radiation, seen as light, is in this frequency range

Most emission lines from atoms range from visible to ultraviolet frequencies. As a general rule, any frequencies measured outside of this range, like radio at the low end, and X-ray or gamma ray at the high end, were emitted by a source of synchrotron radiation.

A black hole violates this general rule because the hot accretion disk is claimed to emit X-rays but that requires an impossible temperature.

75: insert: at end of text:

Important note about X-rays:

X-rays are a problem for cosmology.
Thermal radiation typically spans from infrared to ultraviolet frequencies. A star's thermal radiation, seen as light, is within this frequency range.

Most emission lines from atoms range from visible to ultraviolet frequencies. As a general rule, any frequencies measured outside of this range of thermal radiation, like radio at the low end, and X-ray or gamma ray at the high end, were emitted by a source of synchrotron radiation.

Wherever X-rays are observed, the explanation is wrong when proposing an extreme impossible temperature, like many millions of degrees.
A black hole violates this general rule because the hot accretion disk is claimed to emit X-rays but that requires an impossible temperature.

The spectrum of the claimed black hole reveals a source of synchrotron radiation. It is never thermal.

Insert the new page 222, after page 221.

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