Review of: "A direct calculation in the newtonian gravity framework"

DImitris M. Christodoulou[1]

1 University of Massachusetts at Lowell

Potential competing interests: No potential competing interests to declare.

This work shows an elementary integration to find the potential outside a spherically symmetric distribution of mass (or charge). I am surprised that this derivation is not in the books already. I know that the same type of derivation exists in the books for rings and homogeneous disks, where they calculate the potential along the symmetry axis.

Another point that may be important in this context concerns the comparison with Gauss's law. The derivation given here is only a special case of Gauss's law which is not only simpler, but it also covers a much larger variety of distributions. This beautiful tool applies to ANY arbitrary mass distribution (even discrete ones), not only to a spherical one. For example, it easily covers the case of shells discussed by the author.