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Interactive comment on "Utilising shade to optimize UV exposure for vitamin D" *by* D. J. Turnbull and A. V. Parisi

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This paper provides solar exposure values over a range of angles for delivering UVB doses sufficient for generating adequate levels of vitamin D to a fair-skinned person. This is potentially useful data in view of current discussion about the health benefits or otherwise of human exposure to sunlight. The emphasis is on using shade UVB but the health benefit of have reduced the UVA level by this means is limited. A better way to justify shade would be as a convenient blocker, say about SPF 2-3 for minimal shade such as under a hat or beach umbrella. The danger of excessive UVB exposure in shade due to filtering of infrared (and consequent prolonged exposure) did not come through as clearly as one would have wished.

The paper was generally well written although the legend to Fig 4 was hard to under-

stand. It would have more general appeal if the salient results could be summarised in a table in a way that a "lay" reader could follow, eg, Exposure times giving a Vit D dose in minimal shade, deep shade, full sun and for 3 different latitudes, all at midday.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 781, 2008.