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WMAP: A Radiological Analysis PIERRE-MARIE ROBITAILLE,

The Ohio State University — WMAP has been hailed as probing the signature of the early universe yielding precise cosmological findings. In this talk, radiological analysis is applied to these results. WMAP images have an exceedingly low signal:noise on the order of 1.5:1 to 2.5:1. However, prior to obtaining these maps, the stronger galactic signal must be removed. Unlike water suppression in NMR, this is accomplished without a priori knowledge or ability to affect the signal at the source. Galactic signal removal is thus impossible. Attempts to nonetheless remove this signal invariably generates unwanted features in the maps, indistinguishable from real findings, if any. Indeed, the galactic problem alone is sufficient to dismiss any conclusion from WMAP. By using COBE data, it can been seen that these maps contain data processing problems which exceed in strength the analyzed features. The WMAP results are very likely to contain significant random noise fluctuations. NASA should provide each of the 4 yearly maps acquired to date. Comparative analysis should reveal that the WMAP images lack reproducibility - a requirement for credibility in any low signal to noise study.

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