

Re: "instant" of the Big-Bang

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- *From:* "Bill Hobba" <rubbish@xxxxxxxx>
 - *Date:* Sun, 24 Dec 2006 00:16:56 GMT
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"Pmb" <peter102560_nospam@xxxxxxxxxxxx> wrote in message
news:Demdndls_qZS0BDYnZ2dnUVZ_vWtnZ2d@xxxxxxxxxxxx

I'm reading the text "Principles of Physical Cosmology," Peebles,
Princeton University Press (1993). On page 6 Peebles writes

If there is an instant, at a "big bang," when our universe started
expanding, it is not in the cosmology as now accepted, because no one has
thought of a way to adduce objective physical evidence that such an event
really happened.

Does anyone agree with this either in part or in whole?

Well, since it is the birth of space-time, speaking of an instant when it
happened seems a bit meaningless. However, according to inflation, it
started out as a quantum field (the false vacuum) that experienced a
fluctuation that became the big bang. But using adjectives like 'became'
etc would seem fraught with danger, since they imply time, which this was
the birth of. IMHO, one can only describe such things mathematically.

I remember John Baez once posting some stuff about theories where it started
out as one dimension that gradually developed into 4 (or perhaps more – with
some being compactified) – so even speaking of an instant when time began
may be false. I suppose the development would be described by some
parameter that when it reaches some value corresponds to time but until that
value we can't speak of time even existing – notice the use of when – see
what I mean by you really need mathematics?

Thanks
Bill

Best regards

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Pete