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Dr. Anthony R. Kerr National Radio Astronomy Observatory Charlottesville, VA 22903

Dear Tony,

I've just been sent and reviewed your manuscript on amplifier noise definitions. I think its very well written and useful. Just how to put in zero point fluctuations is partly a matter of taste, and my instinct is not to call zero point fluctuations an input. However, for practical engineering use, I think your recommendations make good sense. In any case, I'm pleased with your discussion. The clarity it provides, pointing out inconsistencies in definitions, should be very useful and I hope will lead eventually to a clarifying standardization.

Best regards,

Charles H. Townes

CHT:dj