Two-photon absorption of path-entangled number states PETR
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we present our studies of two-photon absorption of path-entangled number states
|M,M+2> +|M+2,M>. We show theoretically that these states with detection
scheme based on a two-photon absorber are super-resolving and provide high ab-
sorption rate with a visibility of 20% in the limit of large M. We also discuss sensi-
tivity of a two-photon absorber based detection scheme of above mentioned states
and show that the phase sensitivity suffers significant reduction.

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Date submitted: 23 Jan 2009   Electronic form version 1.4