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# *A note on the intersection ideal $\mathcal{M} \cap \mathcal{N}$*

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**Abstract:** We prove among other theorems that it is consistent with $ZFC$ that there exists a set $X \subseteq 2^\omega$ which is not meager additive, yet it satisfies the following property: for each $F_\sigma$ measure zero set $F$, $X + F$ belongs to the intersection ideal $\mathcal{M} \cap \mathcal{N}$.

**Keywords:** $F_\sigma$ measure zero sets; intersection ideal $\mathcal{M} \cap \mathcal{N}$; meager additive sets; sets perfectly meager in the transitive sense; $\gamma$-sets
**AMS Subject Classification:** 03E05, 03E17

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