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Search or Article-id (Help | Advanced search) arXiv.org > math > arXiv:1107.6039 - Go! All papers Mathematics > Number Theory Download: PDF On the estimate for a mean value PostScript Other formats relative to 4/p=1/n\_1+1/n\_2+1/n\_3 Current browse context: math.NT Chaohua Jia < prev | next > new | recent | 1107 (Submitted on 29 Jul 2011) Change to browse by: For the positive integer \$n\$, let \$f(n)\$ denote the number of positive integer math solutions  $(n_1, n_2, n_3)$  of the Diophantine equation {4\over n}={1\over n 1+{1\over n 2}+{1\over n 3}. \$\$ For the prime number \$p\$, \$f(p)\$ can be **References & Citations** split into \$f\_1(p)+f\_2(p),\$ where \$f\_i(p)(i=1, 2)\$ counts those solutions with NASA ADS exactly \$i\$ of denominators \$n\_1, n\_2, n\_3\$ divisible by \$p.\$ Recently Terence Tao proved that  $\ \sum_{p < x} f_1(p) \le x \exp({c \log x \operatorname{over}})$ Bookmark(what is this?) \log\log x}) \$\$ with other results. In this paper we shall improve it to \$\$ \sum\_ 📃 🕸 🗶 🚾 🖬 💼 🚽 😭 💇  $p < x f_1(p) \parallel x \log^5 x \log^2 x.$ Science WISE

## Subjects: Number Theory (math.NT)

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