1046-11-1518 **Sherry Gong***, Cabot Mail Center Box #291, Cambridge, MA 02138. *On a Conjecture Regarding the Coefficients of Cyclotomic Polynomials.*

Let $a_n(k)$ be the coefficient of x^k in the nth cyclotomic polynomial

$$\Phi_n(x) = \prod_{\substack{j=1 \\ gcd(j,n)=1}}^{n} (x - e^{\frac{2\pi ji}{n}})$$

Let $M(a_n(k)) = \lim_{x\to\infty} \frac{1}{x} \sum_{n\leq x} a_n(k)$ be the average of $a_n(k)$, as introduced by Möller, and let

$$f_k = \frac{\pi^2}{6} M(a_n(k))k \prod_{\substack{q\leq k \\ q \text{ prime}}} (q+1).$$

It was conjectured by Y. Gallot, P. Moree and H. Hommersom that the f_k are integers for all k. In this paper, we prove this conjecture. Moreover, we show that for any fixed natural number n, f_k contains n as a factor for sufficiently large k. (Received September 15, 2008)