CONDITION OF AJAY K PRASAD'S PROOF OF GOLDBACH'S CONJECTURE

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ABSTRACT

By analyzing the recently published paper of Ajay K Prasad on Goldbach's conjecture, I have obtained the exact solution of his paper.

INTRODUCTION

In 2015 an Indian Mathematician Ajay K Prasad and I gave result on Goldbach's conjecture. According to Prasad's theory every prime can be written as p=E/2+m and q=E/2-m if Goldbach's conjecture is true and I in my paper showed that every even number can be written as sum of two odd prime in many ways if Goldbach's conjecture is true. By using ,both proof I in this paper have shown that prasad's prime is true and condition is independent of Goldbach's conjecture.

PROOF

Before going to proof first I introduce a new function which is known as" even counting function"

$$\alpha(n) = \begin{cases} \frac{n-1}{2} \; if\ n\ is\ odd \\ \frac{n}{2} \; if\ n\ is\ even \end{cases} \quad \text{.................................(1)}$$

Now , let p and q be the prime number and $\alpha(p)$ and $\alpha(q)$ be the cardinal of even number less than p and q in number system.

Therefore the total even number between p and q will be $\alpha(p)$ - $\alpha(q)$ so, from (1) we easily get $\alpha(p)$ - $\alpha(q)$ = $\frac{p-q}{2}$.

Now, let $\alpha(p)$ - $\alpha(q)$ = m where m is an integer then m = $\frac{p-q}{2}$ so p-q = 2m. ....(2)

Now, let assume that p+q=L ....(3) where L may be any integer .

Evaluating from (2) and (3) we get

P =$\frac{L}{2}$ +m and q =$\frac{L}{2}$ –m ....(4)

So it prove that every prime can be written as in this expression given above.

CONDITION OF ‘M’

I have already shown in my paper that every even number can be written as sum of two odd number in many ways.

Let ‘e’ be the element of set of even number than e={p_i +q_i |p_i and q_i be prime number for every i}

Now say e=p_i +q_i for every i then from expression (4) we can easily show that $p_i = \frac{e}{2} + m_i$ and $q_i = \frac{e}{2} - m_i$ it conclude that ‘m’ is depending on p and q. so, if ‘e’ be the element of even number then for every prime we have many solution of m.

Now from recent paper on Bounded prime gap we know that
$\log_{n\to\infty} \inf(p_{n+1} - p_n) < 7 \times 10^7$ and $\min_n (p_{n+1} - p_n) = 2$ therefore m$\neq 0$ because 2m is prime gap.

CONCLUSION

I easily proved that prasad’s prime[1] easily derived from by using logical proof of Goldbach’s conjecture [2] and bounded prime gap[3].

REFERENCE

[1] Prasad A http://www.academia.edu/10663989/Proof_of_Goldbach_s_Conjecture_manually

[2] Pradhan Y http://www.academia.edu/11009197/Proof_of_Goldbachs_conjecture

[3] Zhang Y ir.nmu.org.ua/bitstream/.../c18a29be5bb5b86f1bbeaa8616a7fe42.**pdf**?...