

# Affirmative resolve of Kothe conjecture

T.Nakashima

E-mail address

tainakashima@mbr.nifty.com

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### **Kothe conjecture**

Some ring has nil ideal that is not equal  $\{0\}$ , in this situation, this ring has not one side nil ideal that is not equal  $\{0\}$

**Theorem 1.1.** *Kothe conjecture is right.*

**proof.** By reductio ad absurdum, we take some element of one side nil ideal. This element goes to zero by  $k$  times multiple. Another side we take multiple  $k$  times. All element is nilpotent. We use only associativity and all ring has associativity. This one side nil ideal is nil ideal. It's contradiction, q.e.d.  $\square$