ZF Law of Excluded Middle on Infinite sets (LEMI)

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From: Banks, A. "A new axiom for ZFC set theory that results in a problem”. vixra.org/abs/1709.0391

Law of excluded middle on infinite sets (LEMI):
"\( \exists n \neg P(n) \lor \forall n P(n) \)"

(1.1)

LET: \( q \); \( p \); \( \% \); \( \# \); \( \sim \); \( + \).

(\( \%q \& \sim (p \& q) \)) + (\( \#q \& (p \& q) \))

(1.2)

Because

(\( \sim (p \& q) = (p \sim q) \))

(1.3)

we rewrite Eq. 1.2 by distributing the quantified operators as:

(\( ((\%q \& p) \& \(\%q \& q \)) + ((\#q \& p) \& (\#q \& q)) \))

(1.4)

Eqs. 1.2 and 1.4 as rendered are not tautologous. Hence Meth8/VL4 finds LEMI suspicious.