1106-03-2694 Joachim Mueller-Theys* (mueller-theys@gmx.de). Immanent Inconsistency.

Metalogical extensions incorporate metalogics by means of new logical symbols. Among many other things, they thereby yield a soundness criterion for immanent attempts, which try to reflect provability or truth by means of unary formulae in stock. However, this benchmark cannot be met within sufficiently strong theories—-a further consequence of the Diagonal Lemma. The associated sense of immanent inconsistency (which the author has had so long) was mathematized by Wilfried Buchholz, who actually derived formulae the translation and the negation of which are consequences at the same time. Thus, particularly, the provability predicate cannot really express provability, and the formula Con derived therefrom cannot really state consistency: the Arithmetization of Metamathematics fails, and the 2nd Incompleteness Theorem is untrue, though Con is unprovable. (Received September 16, 2014)