

ELENA NOGINA

**On reflection principles and iterated consistencies**

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We consider reflection principles comprising proof and/or provability predicates in Peano Arithmetic. Every such principle is shown to be provably equivalent to either local reflection or an iterated consistency assertion; therefore, the reflection principles constitute noncollapsing hierarchy with respect of their deductive strength. The joint logic GLA (stands for Gödel–Löb–Artëmov) of formal provability and explicit proofs has been a principal tool of studying these arithmetical principles.