

Physics-Mathematics Dictionary

by Hrvoje Nikolić

physical language	mathematical language
physics mathematics abstract nonsense	applied mathematics applied mathematics mathematics
conjecture theorem rigorous theorem proof	vague idea conjecture theorem sketch of the proof
basic operations $+$, $-$, \cdot , $:$ classical field theory mathematical analysis linear algebra group theory abstract group theory	commutative field theory multi-variable calculus calculus matrix calculus representation theory group theory
quantum mechanics fancy schmancy functional analysis Hilbert space	mumbo jumbo Dirac notation quantum mechanics rigged Hilbert space
Riemannian geometry tensor contravariant vector covariant vector fancy schmancy index-free notation	pseudo-Riemannian geometry components of a tensor components of a vector components of a one-form differential geometry