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portfolio theory and
asset management
in addition to their
use in research
regarding options
and futures
contracts. In both
theory and
methodology, we
need to rely upon
mathematics,
which includes*

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*linear algebra,
geometry,
differential
equations,
Stochastic
differential
equation (Ito
calculus),
optimization,
constrained
optimization, and
others. These forms
of mathematics*

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have been used to derive capital market line, security market line (capital asset pricing model), option pricing model, portfolio analysis, and others. In recent times, an increased importance has been given to

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*computer
technology in
financial research.*

*Different computer
languages and
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techniques are
important tools for
empirical research
in finance. Hence,
simulation,
machine learning,
big data, and*

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