

# What's New in Mathematica 11

Representing a major milestone in an unprecedented 30-year journey, Mathematica 11 significantly extends the reach of Mathematica and introduces many innovations that give all Mathematica users new levels of power and effectiveness.

With its bold long-term vision of integrating and automating all areas of computation and knowledge, each new version of Mathematica makes new domains accessible as a routine part of any user's workflow. Want to find the solution to a PDE and then 3D print it? Mathematica 11 provides integrated tools that yet again vastly expand the scope of cross-domain projects that can routinely be done by users at all levels.

Mathematica 11 builds on Wolfram's recent R&D breakthroughs in a host of areas—including neural network computation, audio integration and linguistic computing. Existing Mathematica users will also find a wide range of convenient enhancements in interface, language and algorithm depth and efficiency.



Enhancements for Existing Users



Latest Updates: 11.1



Listing of All New Functions  
Features New in Previous Versions

## Featured Mathematica 11 Areas



### Machine Learning

[Neural Networks »](#)

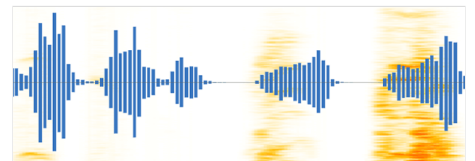
[Machine Learning »](#)



### 3D Printing & Geometry

[3D Printing »](#)

[Core Geometry »](#)

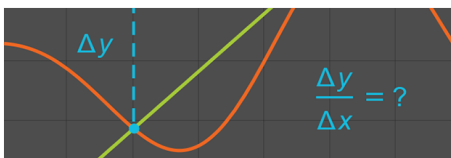


### Audio, Images & Signals

[Computational Audio »](#)

[Computational Photography »](#)

[Image and Signal Processing »](#)



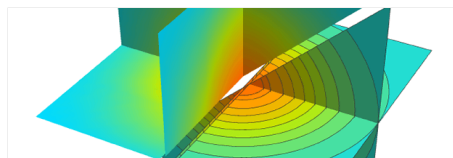
### Mathematics

[Partial Differential Equations »](#)

[Differential Eigensystems »](#)

[Symbolic & Numeric Calculus »](#)

[Algebra & Number Theory »](#)

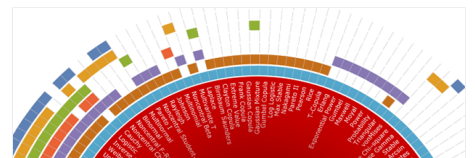


### Visualization & Graphics

[Visualization: Labels, Scales, Exclusions »](#)

[New Visualization Domains »](#)

[Volume Visualization »](#)



### Graphs & Statistics

[Graphs & Networks »](#)

[Random Matrices »](#)

[Extended Probability & Statistics »](#)



## Geography

[Enhanced Geo Visualization »](#)

[Geo Computation »](#)

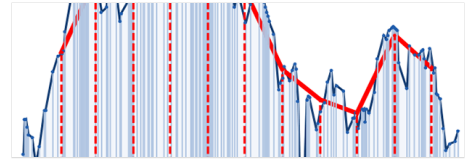
[Geo Data »](#)



## Text and Language Processing

[Text and Language Processing »](#)

[Multilingual Functionality »](#)

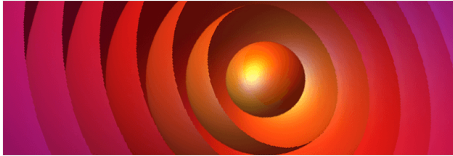


## Units & Dates

[Time Series Processing »](#)

[Quantities in Probability & Statistics »](#)

[Units & Dates »](#)



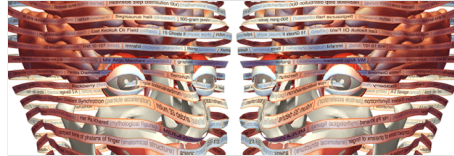
## Language & System

[Core Language »](#)

[Systems-Level Functionality »](#)

[User Interface Enhancements »](#)

[External Services »](#)



## Knowledgebase

[Knowledgebase Expansion »](#)

[Richer Knowledgebase Access »](#)



## Cloud

[Cloud & Web Interfaces »](#)

[Cloud Storage & Operations »](#)

[Channel Framework »](#)