

# Agda from Nothing

Programs as Proofs

Agda is a dependently typed functional  
**programming language.**

–Agda Wiki

Agda is a **proof assistant**. It is an interactive system for writing and checking proofs.

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Agda is based on intuitionistic **type theory**, a foundational system for constructive mathematics developed by the Swedish logician Per Martin-Löf.

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Bertrand Russell—1908—Ramified Theory of Types

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Alonzo Church—1930s—Lambda Calculus

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Per Martin-Löf—1972—Intuitionistic Type Theory

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Catarina Coquand—1999—Agda

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Ulf Norell—2007—Agda 2

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# Key Topics

- Inductive Types
- Functions
- Equality