


# Julia Programming Language: Guide & Reactive Applications



HELLENIC REPUBLIC  
National and Kapodistrian  
University of Athens

— EST. 1837 —

**Julia Team of Mathematics NKUA**  
**National and Kapodistrian University of Athens**

►  : [github.com/nkuamath-julia/NASCA23](https://github.com/nkuamath-julia/NASCA23)

# Julia in a Nutshell

## Release of Julia 1.0, 8 August 2018

Created by: Jeff Bezanson, Stefan Karpinski, Viral B. Shah Alan Edelman

Poster  
Introduction

Julia in a  
Nutshell

Content

Ending

Quote from the creators:

“We want a language that’s **open source**, with a liberal license.  
We want the **speed** of C  
with the **dynamism** of Ruby.  
We want a language that’s **homoiconic**,  
with true **macros** like Lisp,  
but with obvious, familiar **mathematical notation** like Matlab.  
We want something as usable for **general programming** as Python,  
as easy for **statistics** as R,  
as natural for **string processing** as Perl,  
as powerful for **linear algebra** as Matlab,  
as good at **gluing programs** together as the shell.  
Something that is **dirt simple** to learn,  
yet keeps the most **serious hackers** happy.  
We want it **interactive** and we want it **compiled**.”

# Poster's Content

- Introduction & Guide of Julia Language
- The accuracy of different expressions representing equal quantities
- Interactive program that converts numbers from decimal to  $b$ -ary
- Interactive program that prints binary rational numbers (numbers that have finite binary representation) within a given range
- Benchmarks of algorithms which find whether a number is prime or not
- Julia's efficiency in the Newton-Raphson Method & matrix computations, benchmarking it against MATLAB and Python
- Lagrange & Newton Interpolation

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# Thank you for your time!

We would love to see you during  
the coffee breaks!

The future seems **B r i g h t**



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