

The background features decorative hexagonal patterns in the corners, resembling a molecular or network structure. The main text is centered and reads:

DEEP LEARNING WORLD

BEYOND VISION, SOUND AND NLP

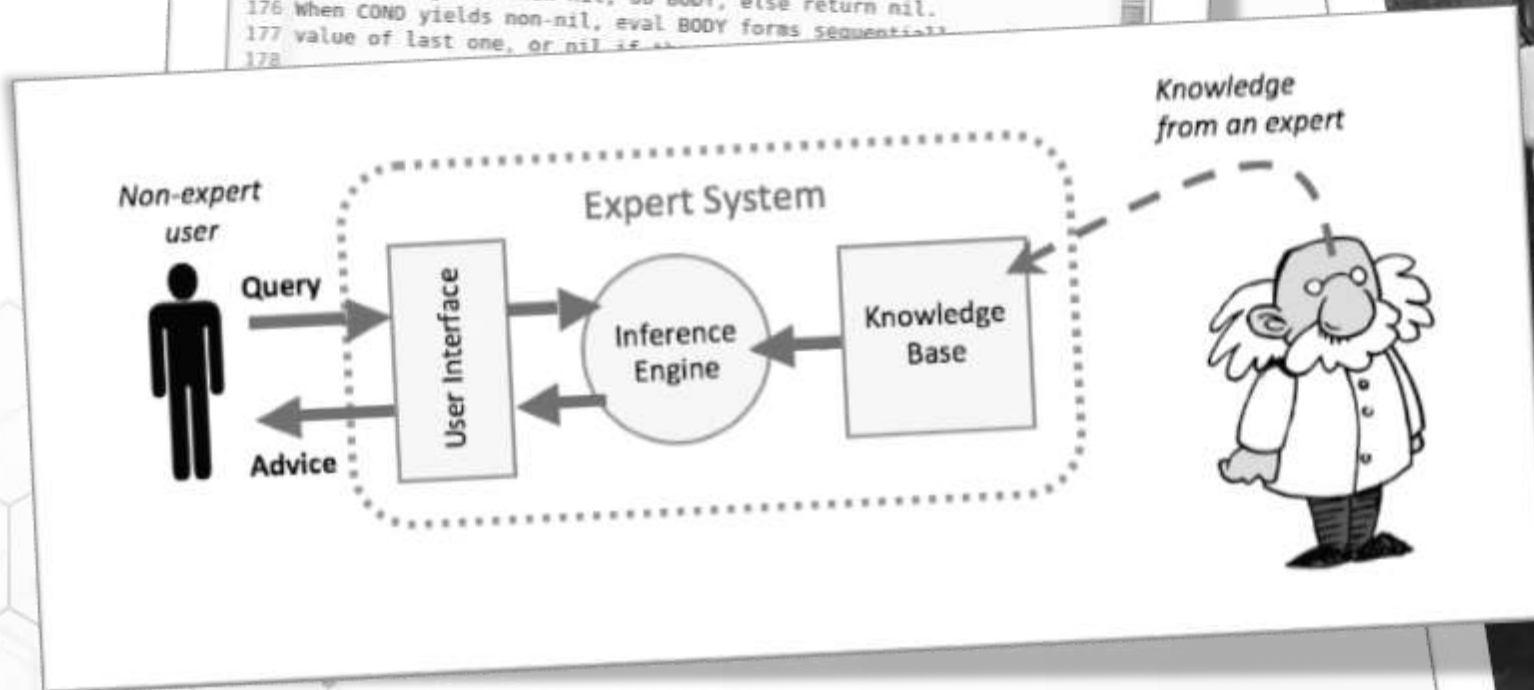
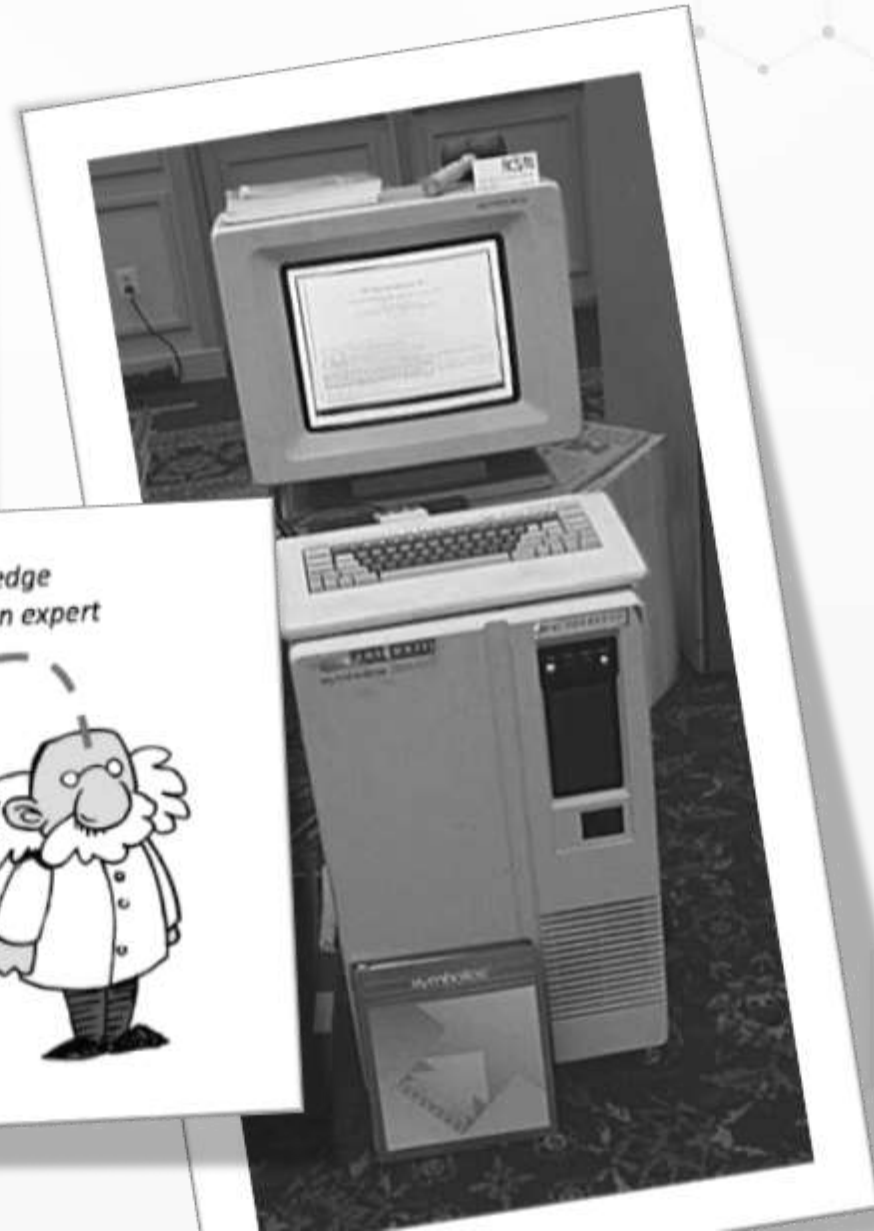
MIMICKING THE BRAIN: FRANK ROSENBLATT



1980: EXPERT SYSTEMS AND LISP

```
sub:el
File Edit Options Buffers Tools Help
1 ;; emacs lisp
2 ;; when, is a lisp macro
3 (when (> 4 3) (print "A")) ; prints A
4 (when (> 3 4) (print "A")) ; does not print
  []

--*- xxxxx32416.el All LS ([lisp PgLn Undo-Tree{flykeys } , Abbre
174 [defmacro when (cond &rest body)
175   "If COND yields non-nil, do BODY, else return nil.
176 When COND yields non-nil, eval BODY forms sequentially
177 value of last one, or nil if no forms.
178
```



1990 : UNDER COVER



Who says that there are no real-world applications for an AI paper?

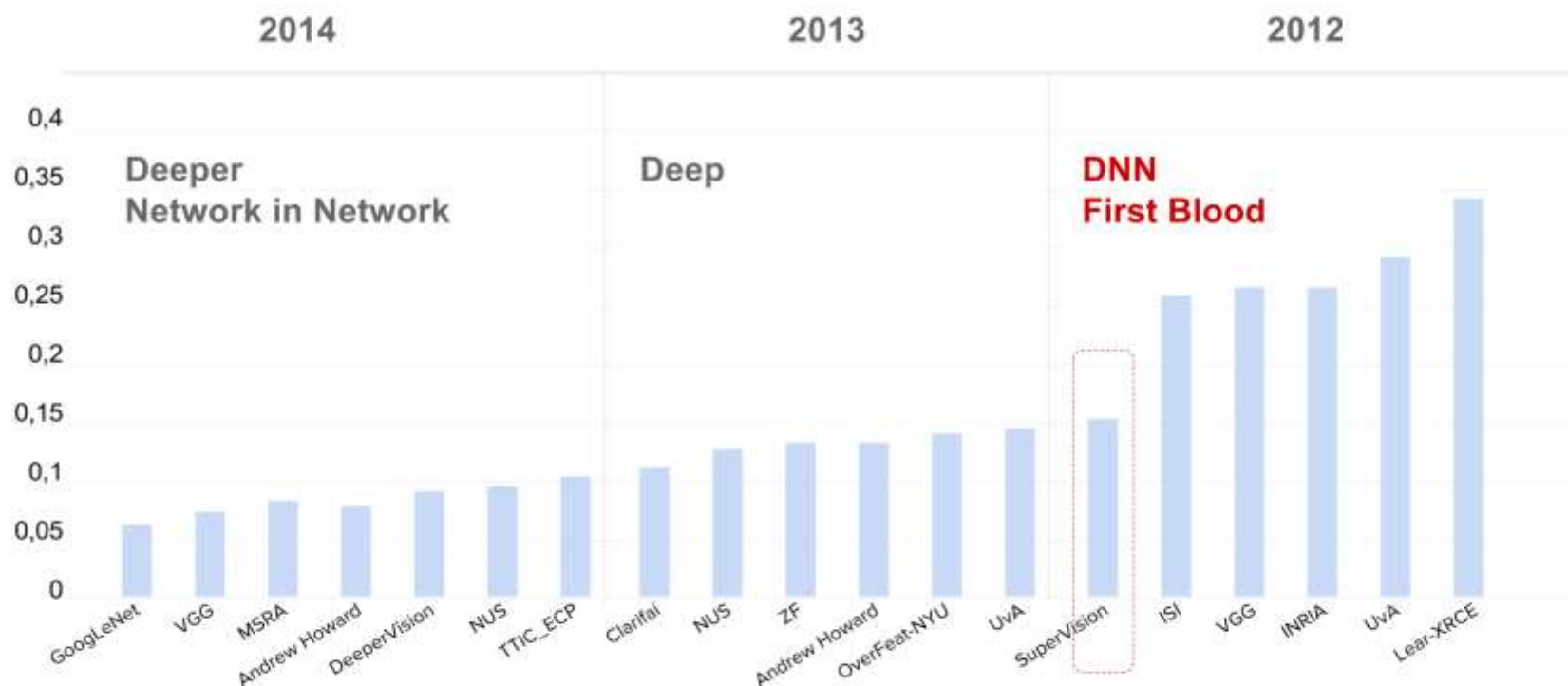
[\[First\]](#) [\[Prev\]](#) [\[Next\]](#) [\[Last\]](#)

DAGS Russian River outing. Page 17 of 22
Comments and suggestions welcome.

RISE OF DEEP LEARNING

ILSVRC

ImageNet Classification error throughout years and groups



MODERN HYPE

Technology
AI is the biggest risk we face as a civilisation, Elon Musk says

4 Comments

Artificial intelligence will take half of all jobs in the next decade, says widely known technologist

MUSK'S BILLION-DOLLAR CRUSADE TO STOP THE A.I. APOCALYPSE

ARTIFICIAL INTELLIGENCE IS CHANGING THE WORLD AS WE KNOW IT. WILL HUMANITY SURVIVE?

Life 3.0: Being Human in the Age of Artificial Intelligence

by Max Tegmark (Author)
★★★★★ 29 customer reviews
Amazon Charts #9 Most Sold

Robots to replace humans in all work within 120 years – and this is how they will do it

On the Threat of Artificial Intelligence
Stephen Hawking

Brent Morgan
Founder of Transcendent Designs LLC
Feb 7 · 4 min read

The Real Threat of Artificial Intelligence

点击查看本文中文版 | Leer en español

By KAI-FU LEE JUNE 24, 2017

Artificial Intelligence: Can it Replace Human Intelligence?

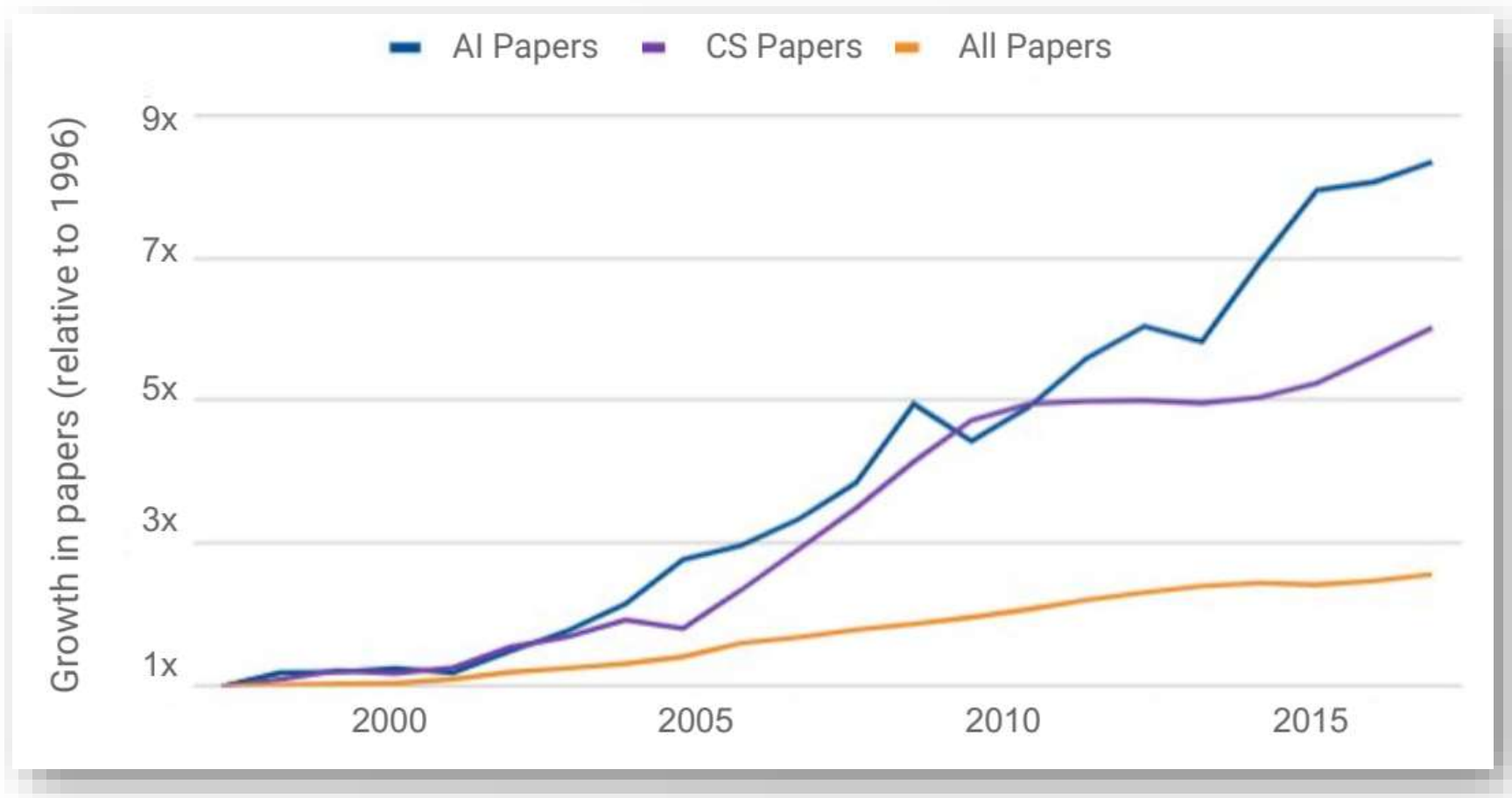
Humans Obsolete?



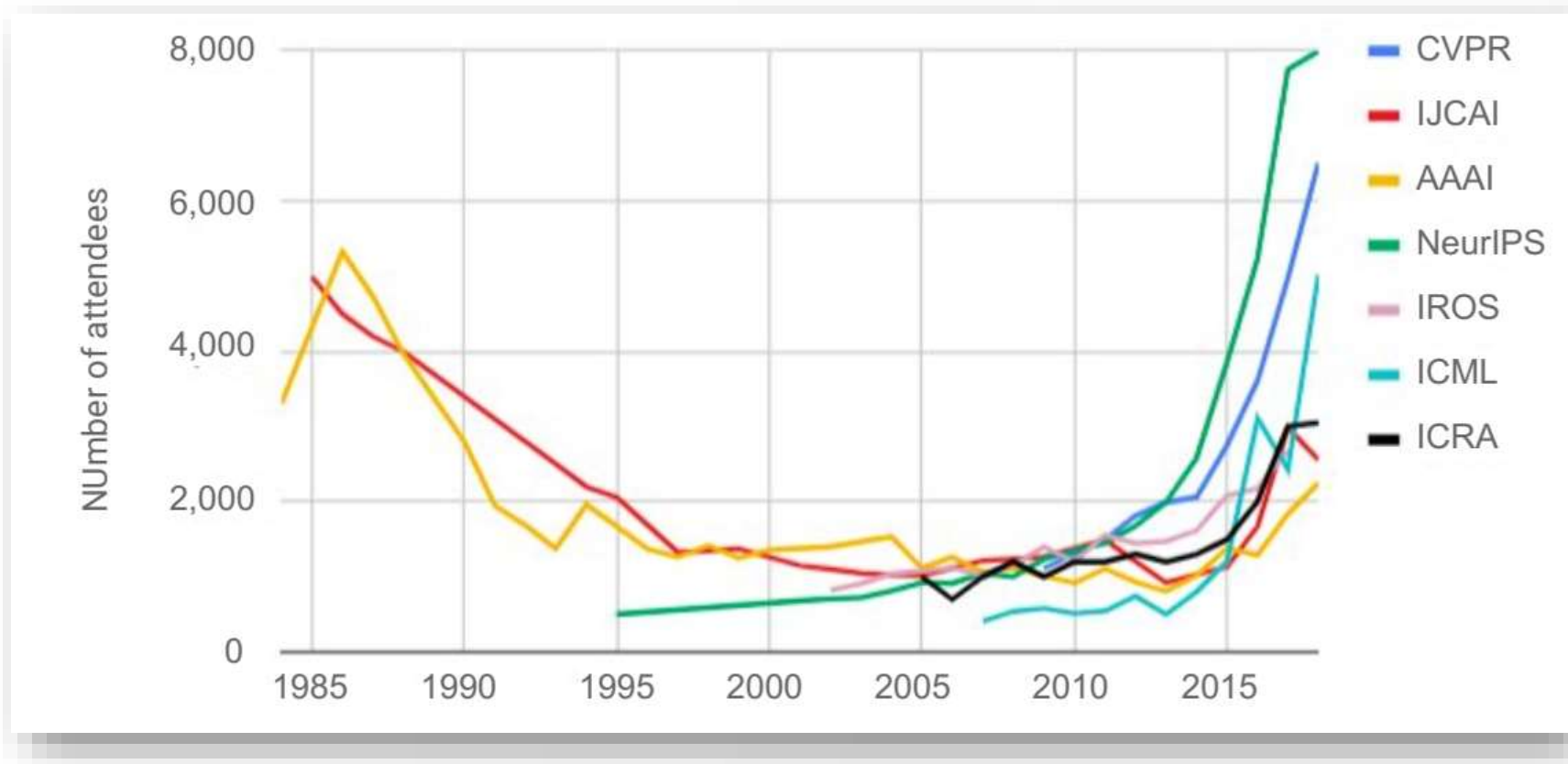
ALEXANDRE ROBICQUET
CHERCHEUR EN INTELLIGENCE
ARTIFICIELLE

LE NOUVEAU PARFUM MASCULIN
YVES SAINT LAURENT

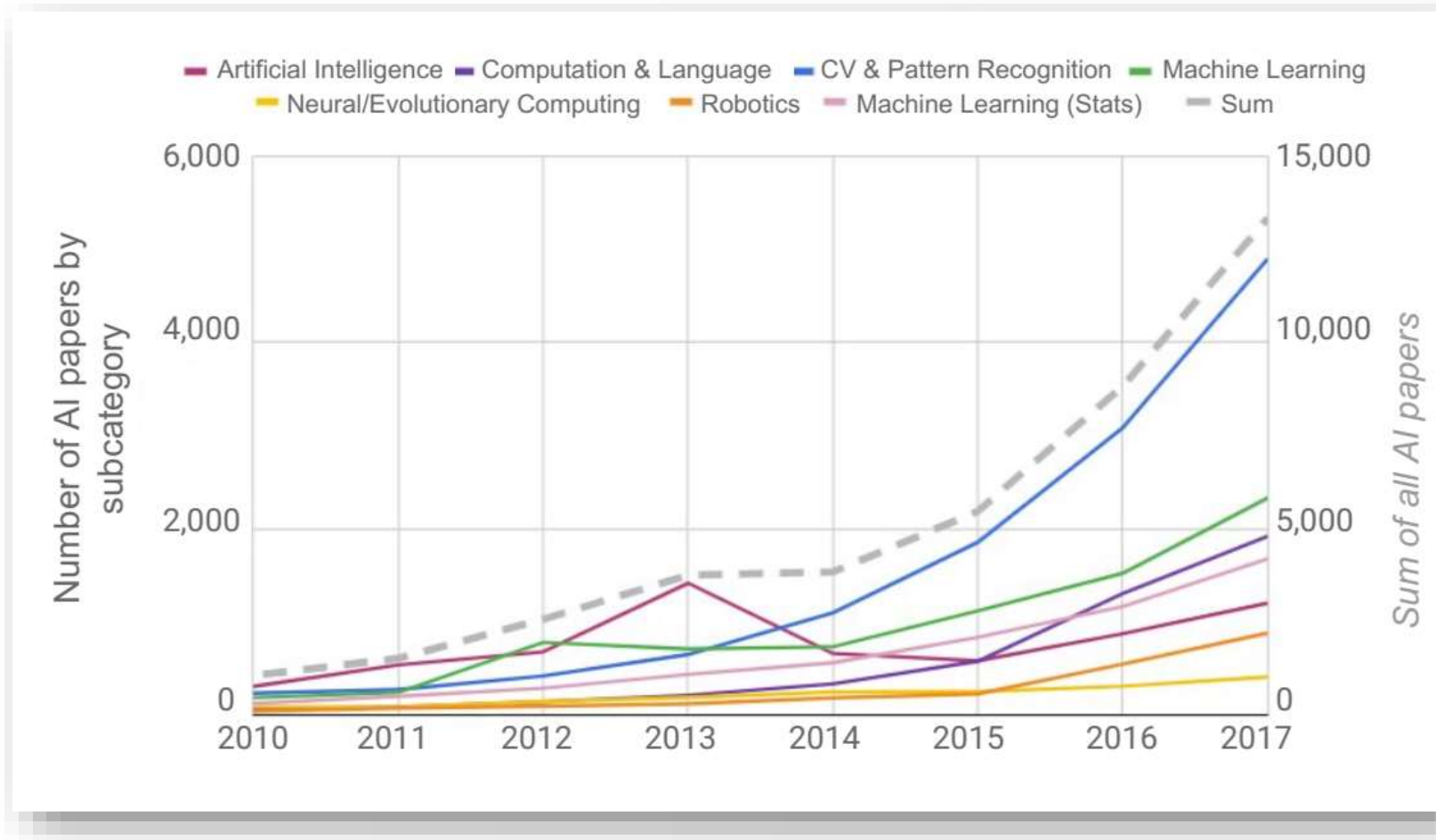
GROWTH OF ANNUALLY PUBLISHED PAPERS BY TOPIC (1996-2017)



ATTENDANCE AT LARGE CONFERENCES (1984–2018)



NUMBER OF AI PAPERS ON ARXIV BY SUBCATEGORY (2010–2017)





Industrial
applications

Technical
application

Technology

TECHNICAL APPLICATIONS BY AI INDEX 2018

Vision

- Object detection
- Object segmentation
- *Object generation?*

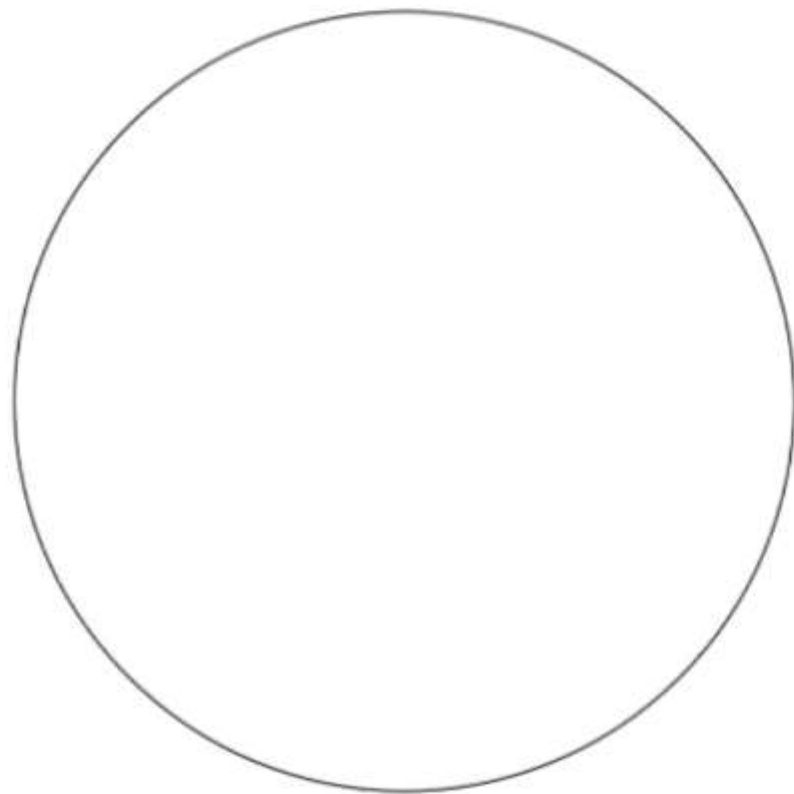
Language

- Parsing
- Machine translation
- Question answering
- General language understanding evaluation (GLUE)

THE ILLUSTRATED GUIDE TO A PH.D.

BY MATT MIGHT

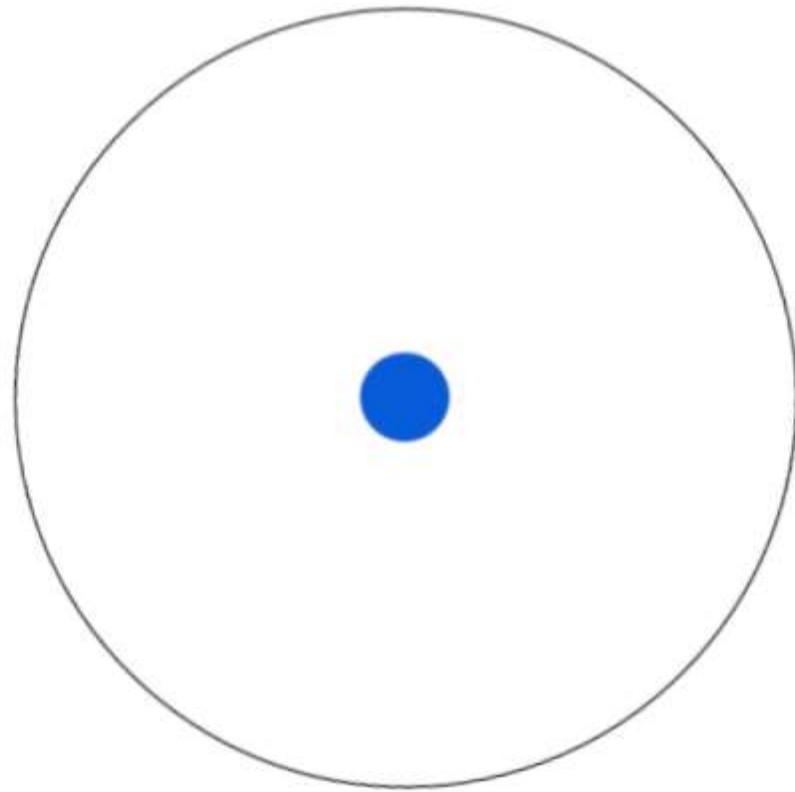
Imagine a circle that contains all of human knowledge:



THE ILLUSTRATED GUIDE TO A PH.D.

BY MATT MIGHT

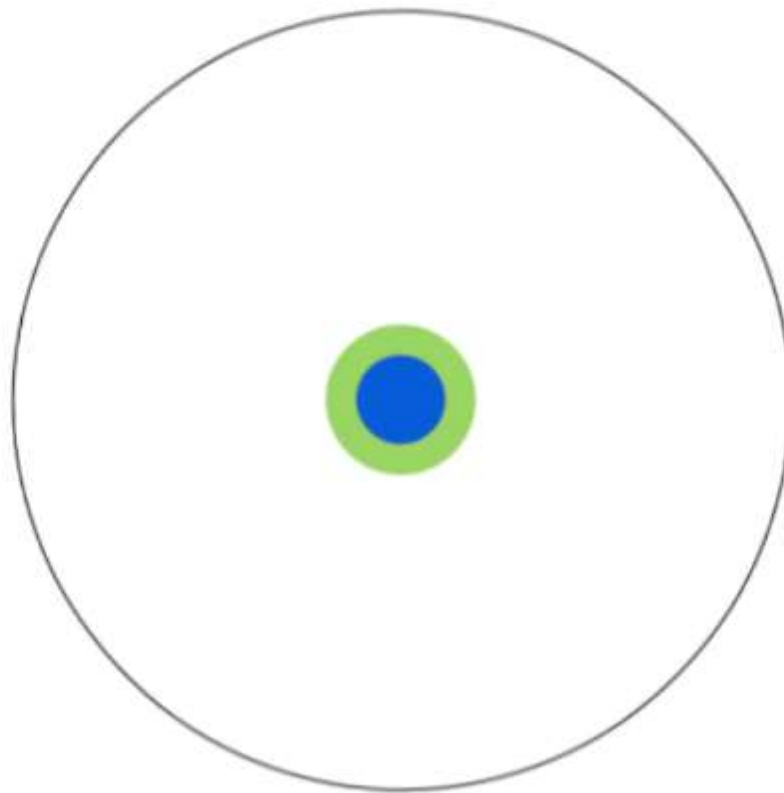
By the time you finish elementary school, you know a little:



THE ILLUSTRATED GUIDE TO A PH.D.

BY MATT MIGHT

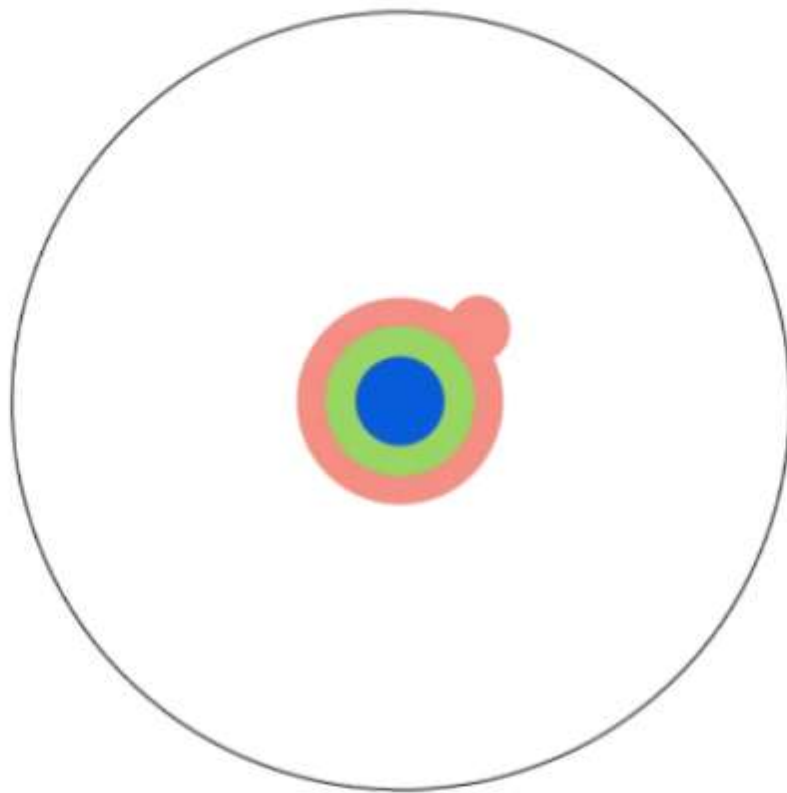
By the time you finish high school, you know a bit more:



THE ILLUSTRATED GUIDE TO A PH.D.

BY MATT MIGHT

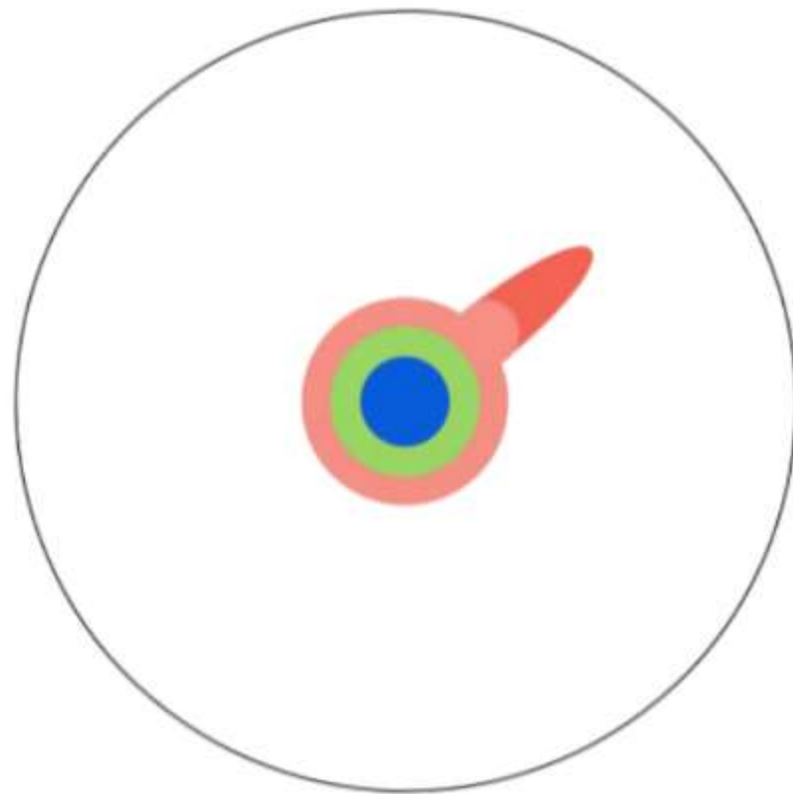
With a bachelor's degree, you gain a specialty:



THE ILLUSTRATED GUIDE TO A PH.D.

BY MATT MIGHT

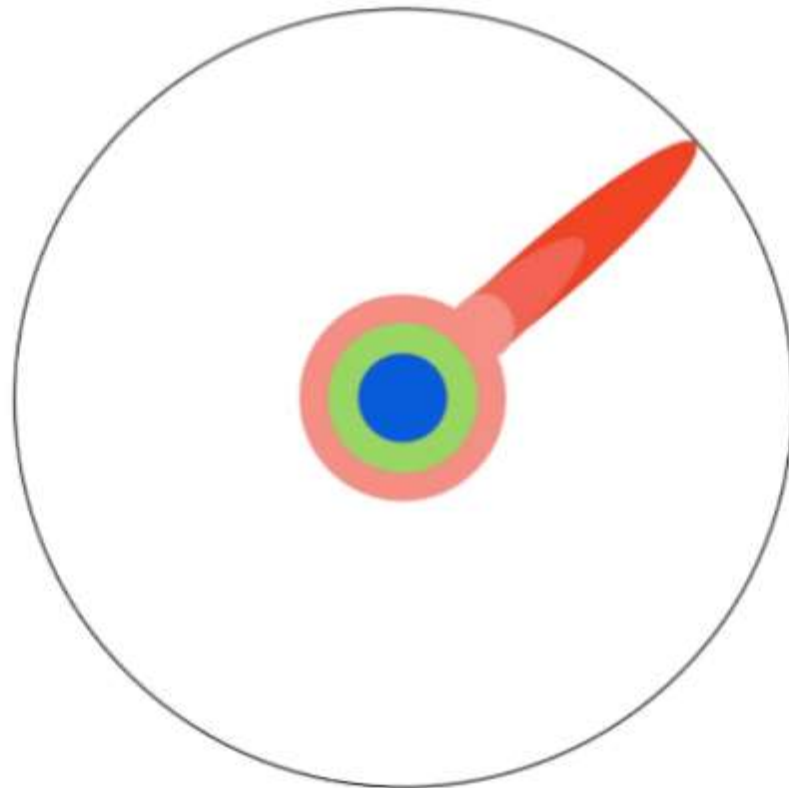
A master's degree deepens that specialty:



THE ILLUSTRATED GUIDE TO A PH.D.

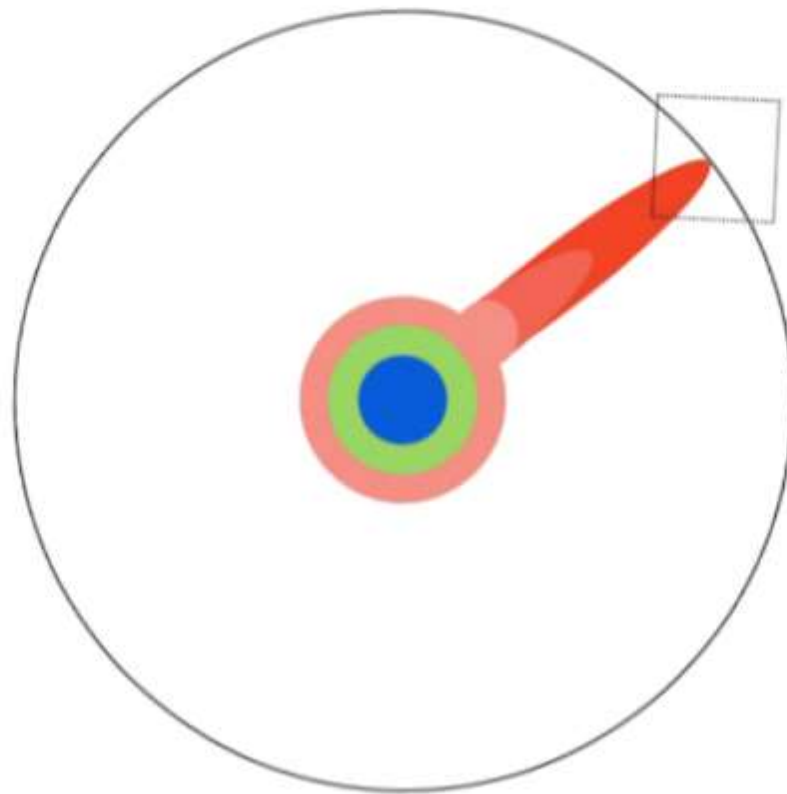
BY MATT MIGHT

Reading research papers takes you to the edge of human knowledge:



THE ILLUSTRATED GUIDE TO A PH.D. BY MATT MIGHT

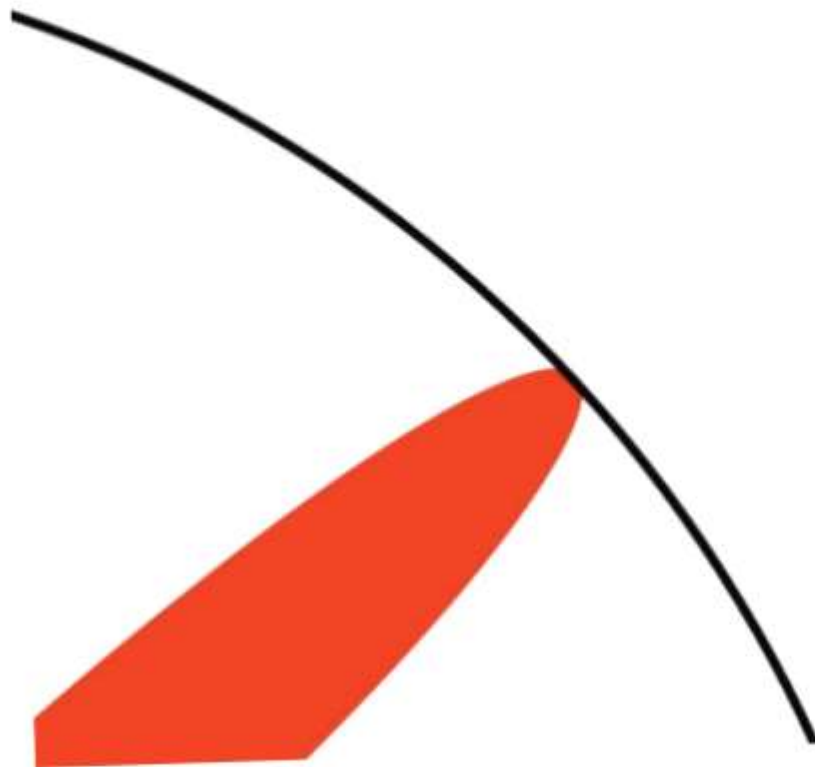
Once you're at the boundary, you focus:



THE ILLUSTRATED GUIDE TO A PH.D.

BY MATT MIGHT

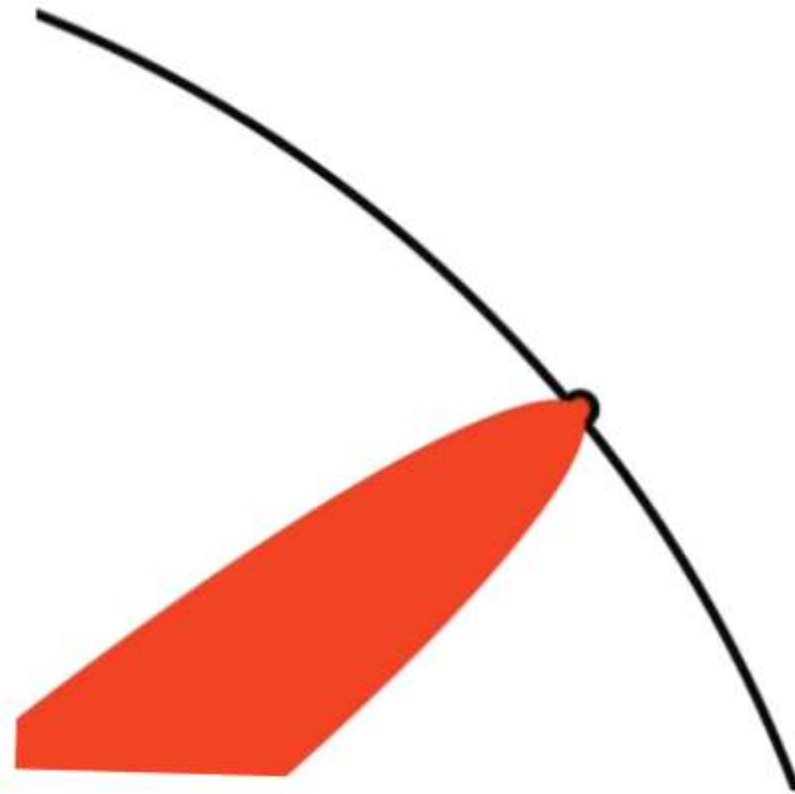
You push at the boundary for a few years:



THE ILLUSTRATED GUIDE TO A PH.D.

BY MATT MIGHT

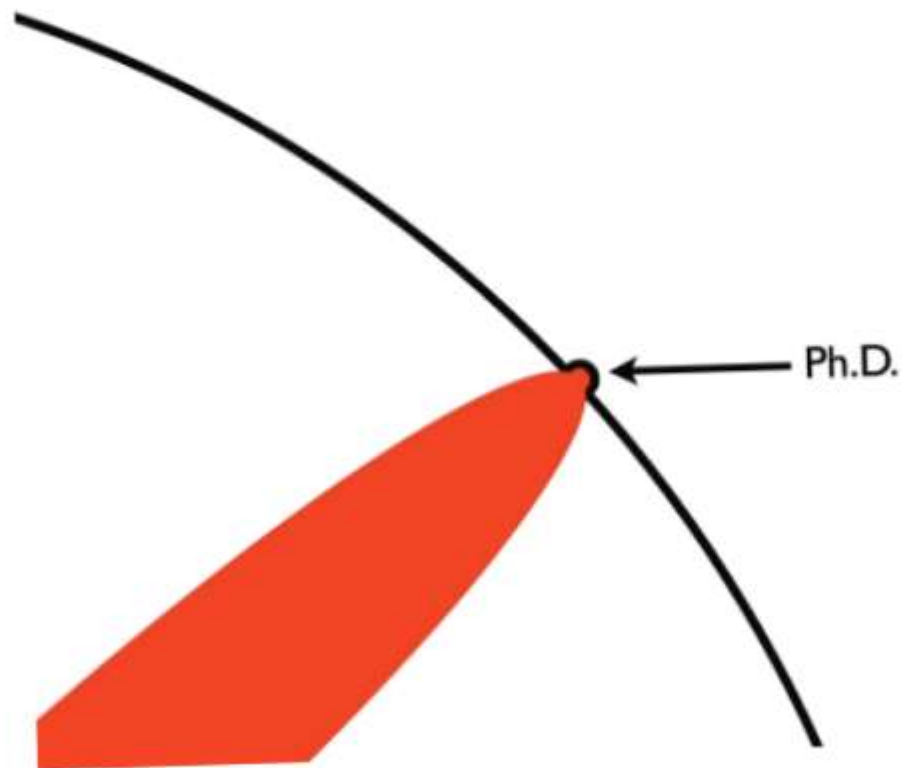
Until one day, the boundary gives way:



THE ILLUSTRATED GUIDE TO A PH.D.

BY MATT MIGHT

And, that dent you've made is called a Ph.D.:



THE ILLUSTRATED GUIDE TO A PH.D.

BY MATT MIGHT

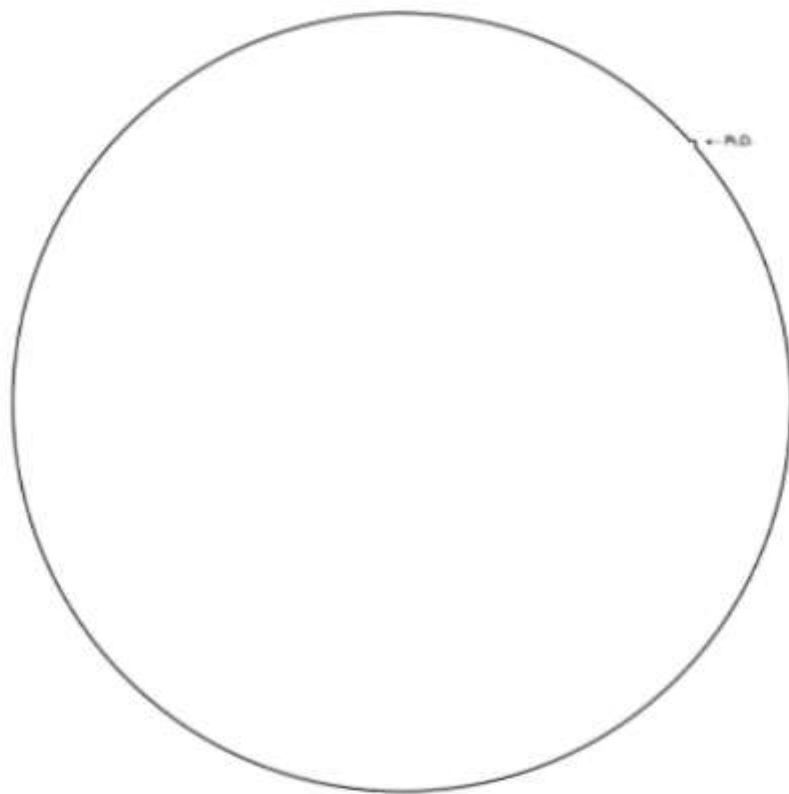
Of course, the world looks different to you now:



THE ILLUSTRATED GUIDE TO A PH.D.

BY MATT MIGHT

So, don't forget the bigger picture:



... BECAUSE IT'S COOL

The world's highest queue. Climbers go crampon-to-crampon to reach Mount Everest summit [#mountains](#) [#Everest](#)



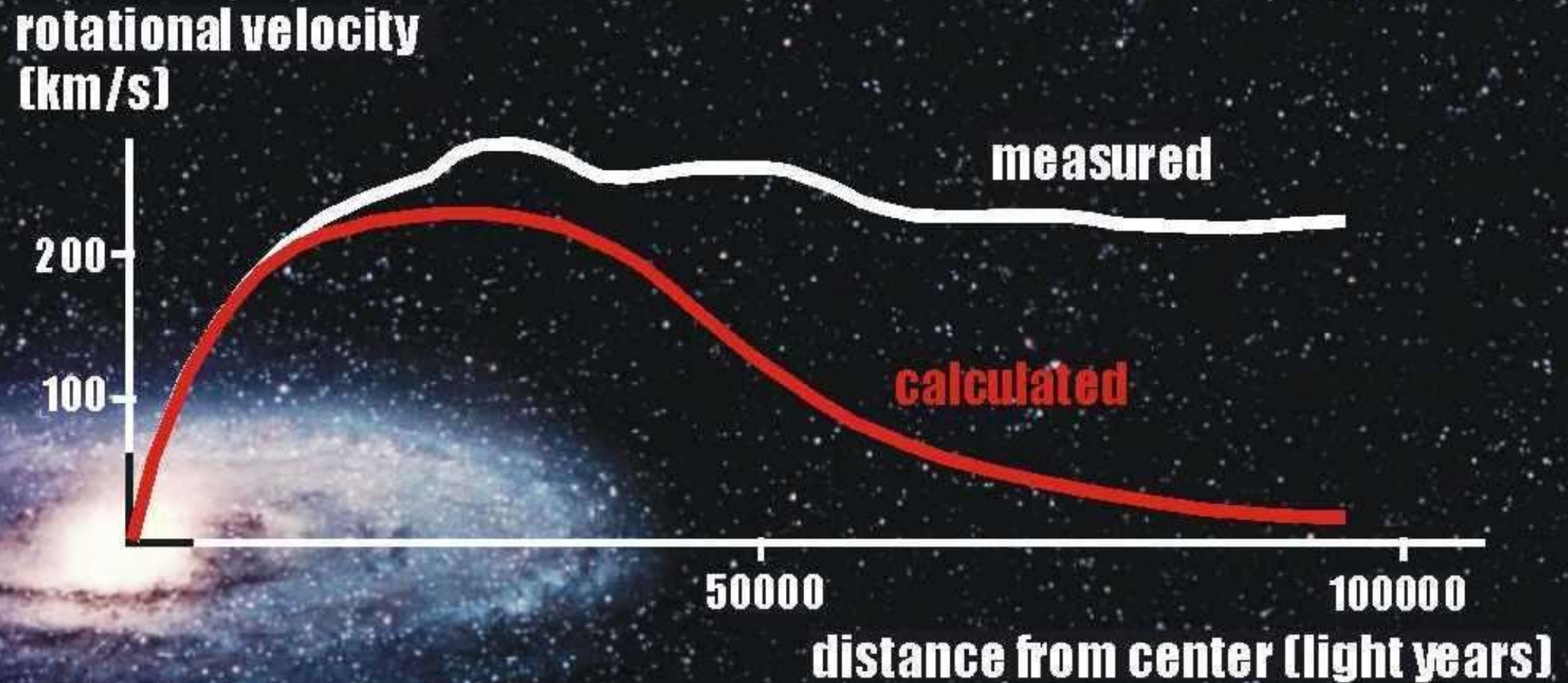
... BECAUSE IT'S COOL



... BECAUSE IT IS EASY



ASTRONOMY: WHAT IS THE DARK MATTER?





Showing 1-16 of 16 results for all: deep learning dark matter

Search v0.5 released 2018-12-20 [Feedback?](#)

All fields

deep learning dark matter

Show abstracts Hide abstracts

[Advanced Search](#)

50 results per page. Sort results by

1. [arXiv:1909.07346](#) [[pdf](#), [other](#)] [astro-ph.CO](#) [astro-ph.IM](#) [hep-ph](#)

Deep Learning the Morphology of Dark Matter Substructure

Authors: Stephon Alexander, Sergei Gleyzer, Evan McDonough, Michael W. Toomey, Emanuele Usai

Abstract: Strong gravitational lensing is a promising probe of the substructure of dark... [More](#)

Submitted 16 September, 2019; originally announced September 2019.

Comments: 10 pages

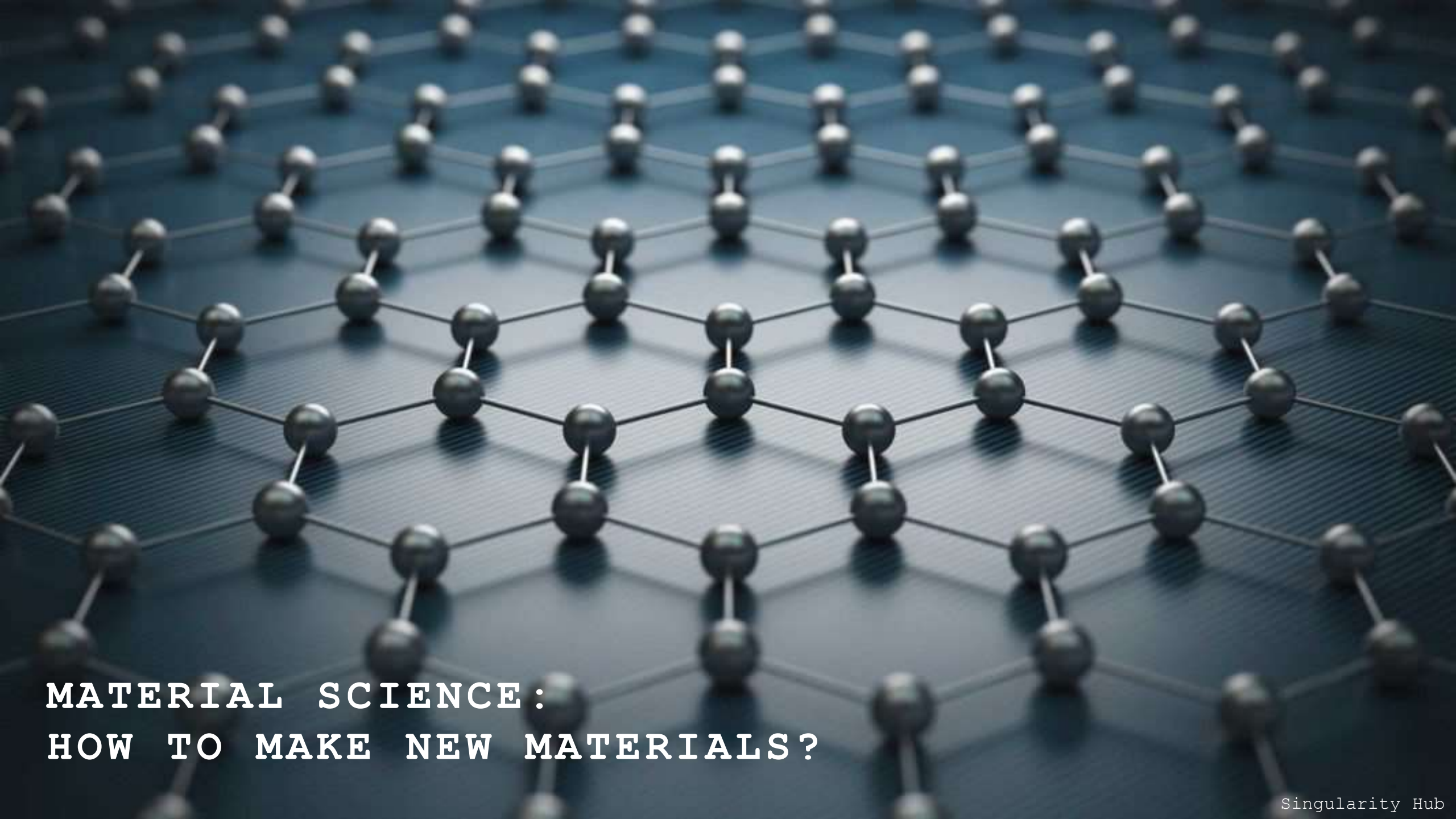
2. [arXiv:1908.10590](#) [[pdf](#), [other](#)] [astro-ph.CO](#) [gr-qc](#)

Cosmological parameter estimation from large-scale structure deep learning

Authors: Shuyang Pan, MiaoXin Liu, Jaime Forero-Romero, Cristiano G. Sabiu, Zhigang Li, Haitao Miao, Xiao-Dong Li

Abstract: We propose a light-weight deep convolutional neural network to estimate the cosmological parameters from simulated 3-dimensional dark matter distributions with high accuracy. The training set is based on 465 realizations of a cubic box size of $256 h^{-1}$ Mpc on a side, sa... [More](#)

Submitted 28 August, 2019; originally announced August 2019.



**MATERIAL SCIENCE:
HOW TO MAKE NEW MATERIALS?**

Showing 1-15 of 15 results for all: deep learning crystal structure

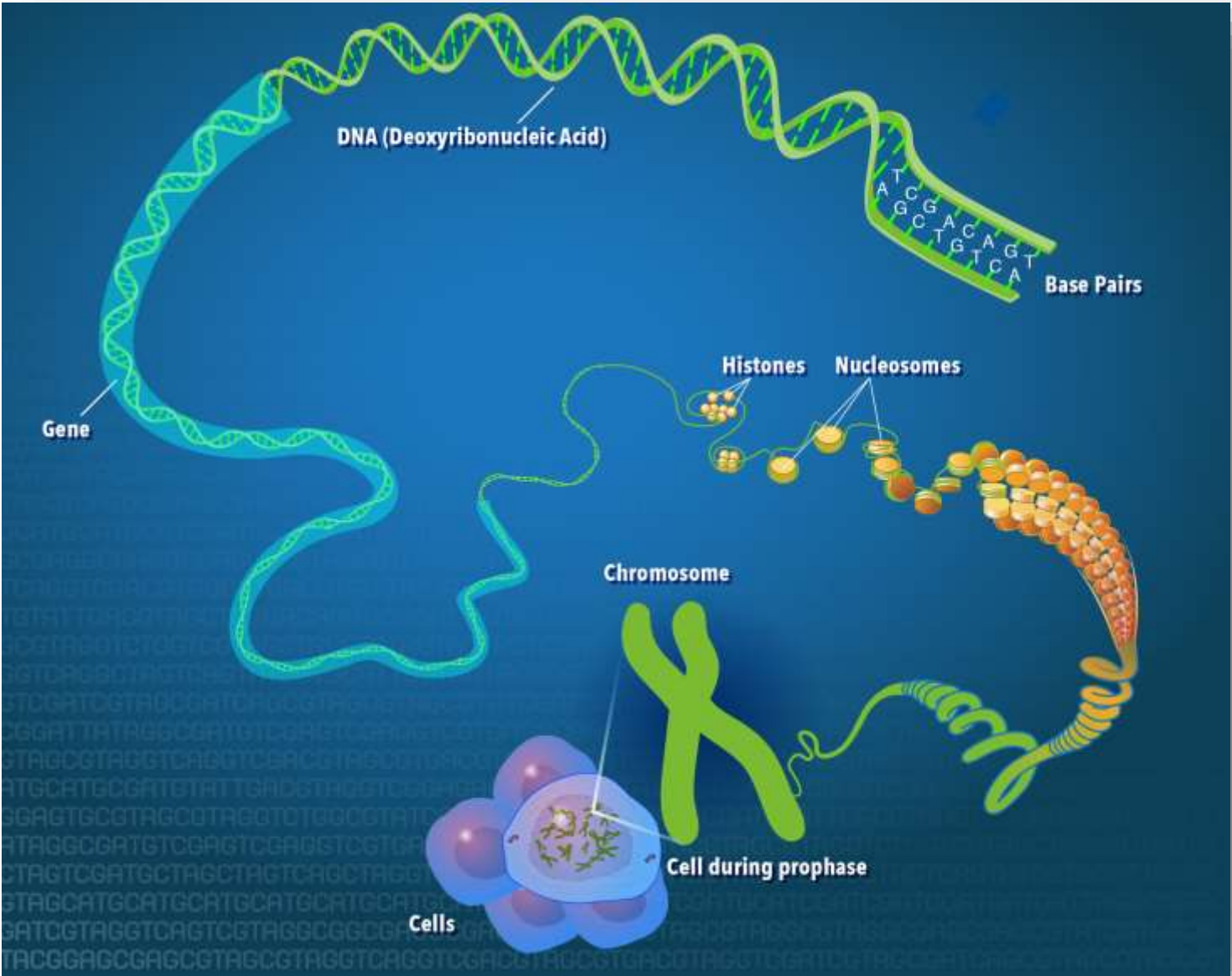
Search v0.5 released 2018-12-20 Show abstracts Hide abstractsAll fields [Advanced Search](#)50 results per page. Sort results by

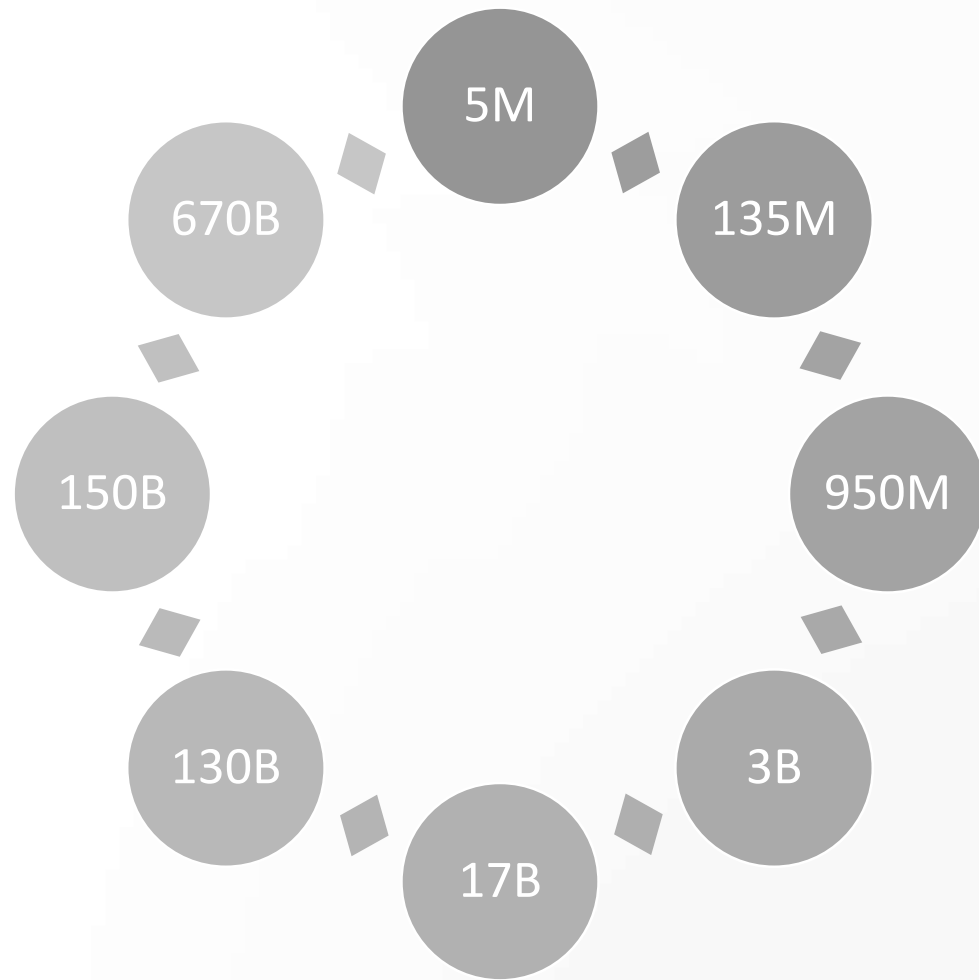
1. [arXiv:1908.03702](#) [pdf] [physics.comp-ph](#) [physics.optics](#)
Iterative optimization of photonic crystal nanocavity designs by using deep neural networks
Authors: Takashi Asano, Susumu Noda
Abstract: Devices based on two-dimensional photonic-crystal (2D-PC) nanocavities, which are defined by their air hole patterns, usually require a high quality (Q) factor to achieve high performance. We demonstrate that hole patterns with very high Q factors can be efficiently found by the iteration procedure consisting of: machine... More
Submitted 10 August, 2019; originally announced August 2019.
2. [arXiv:1907.09314](#) [pdf, other] [physics.comp-ph](#) [cs.CV](#) [cs.LG](#)
Artificial Neural Network Algorithm based Skyrmion Material Design of Chiral Crystals
Authors: B. U. V Prashanth, Mohammed Riyaz Ahmed
Abstract: The model presented in this research predicts ideal chiral crystal and propose a new direction of designing chiral... More

A glowing blue DNA double helix structure is the central focus of the image. The helix is rendered with a textured, almost crystalline appearance, showing the intricate details of the sugar-phosphate backbone and the base pairing. The structure is set against a dark blue, slightly grainy background that features faint, out-of-focus DNA helices, creating a sense of depth and a scientific atmosphere. The lighting is dramatic, highlighting the curves and ridges of the DNA molecule.

BIOLOGY:
HOW DOES A GENOME WORK?

WHAT IS GENOME?





Polychaos dubium



Wheat



Marbled lungfish



Tomato



Paris japonica



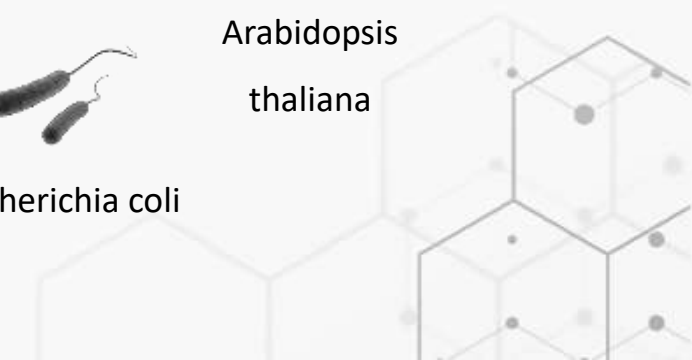
Human



Arabidopsis thaliana

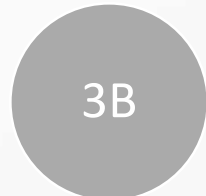
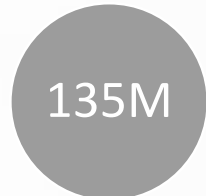


Escherichia coli





Escherichia coli



Polychaos dubium



Wheat



Marbled lungfish



Tomato



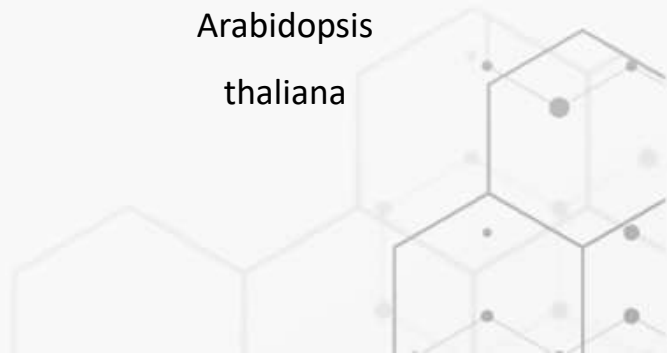
Paris japonica



Human



Arabidopsis thaliana

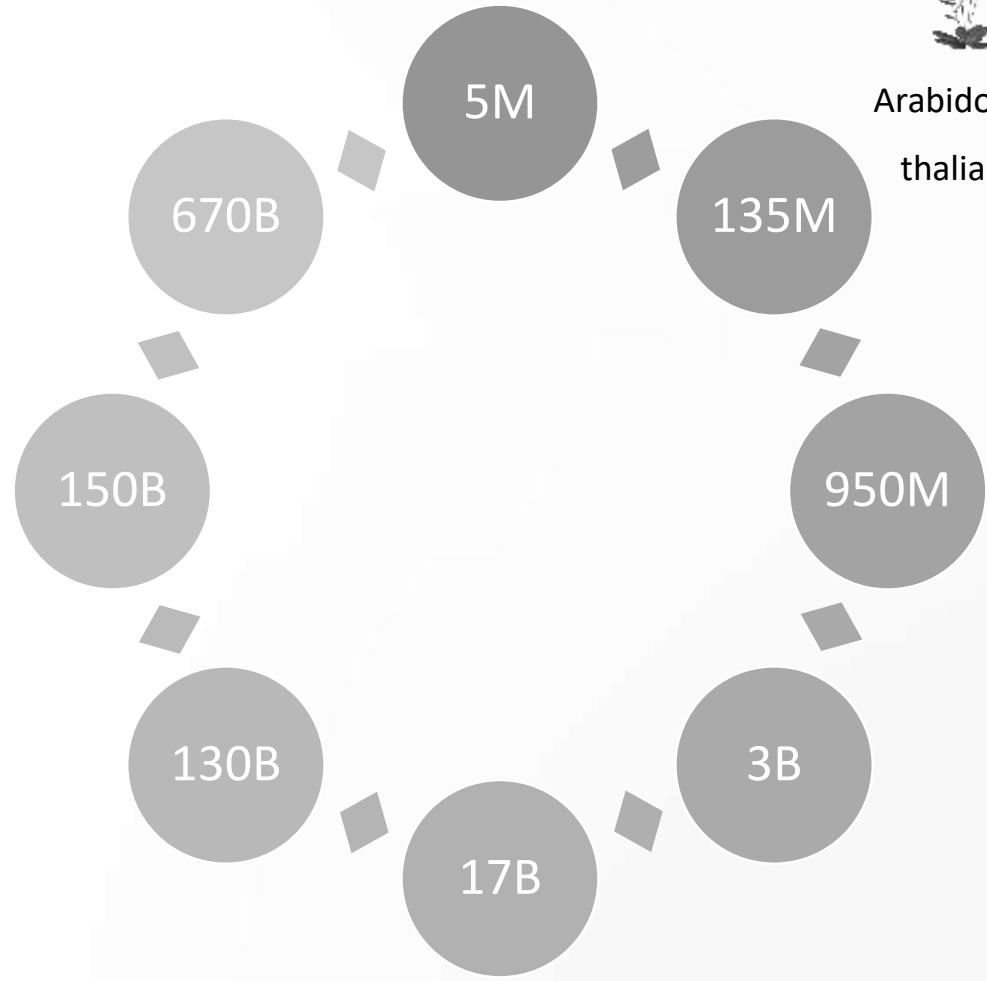




Escherichia coli



Arabidopsis thaliana



Paris japonica



Human



Polychaos dubium



Wheat



Marbled lungfish



Tomato





Escherichia coli



Arabidopsis thaliana



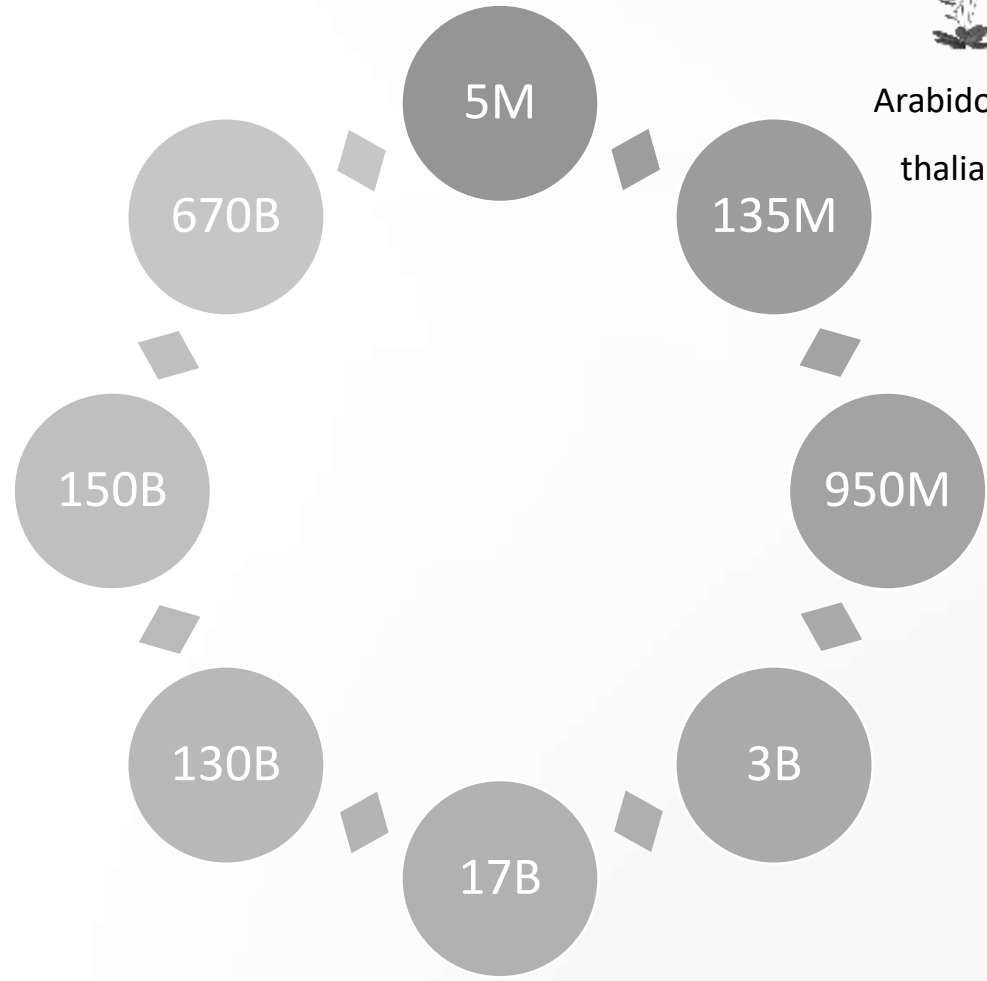
Paris japonica



Tomato



Human



Polychaos dubium



Wheat



Marbled lungfish





Escherichia coli



Arabidopsis thaliana



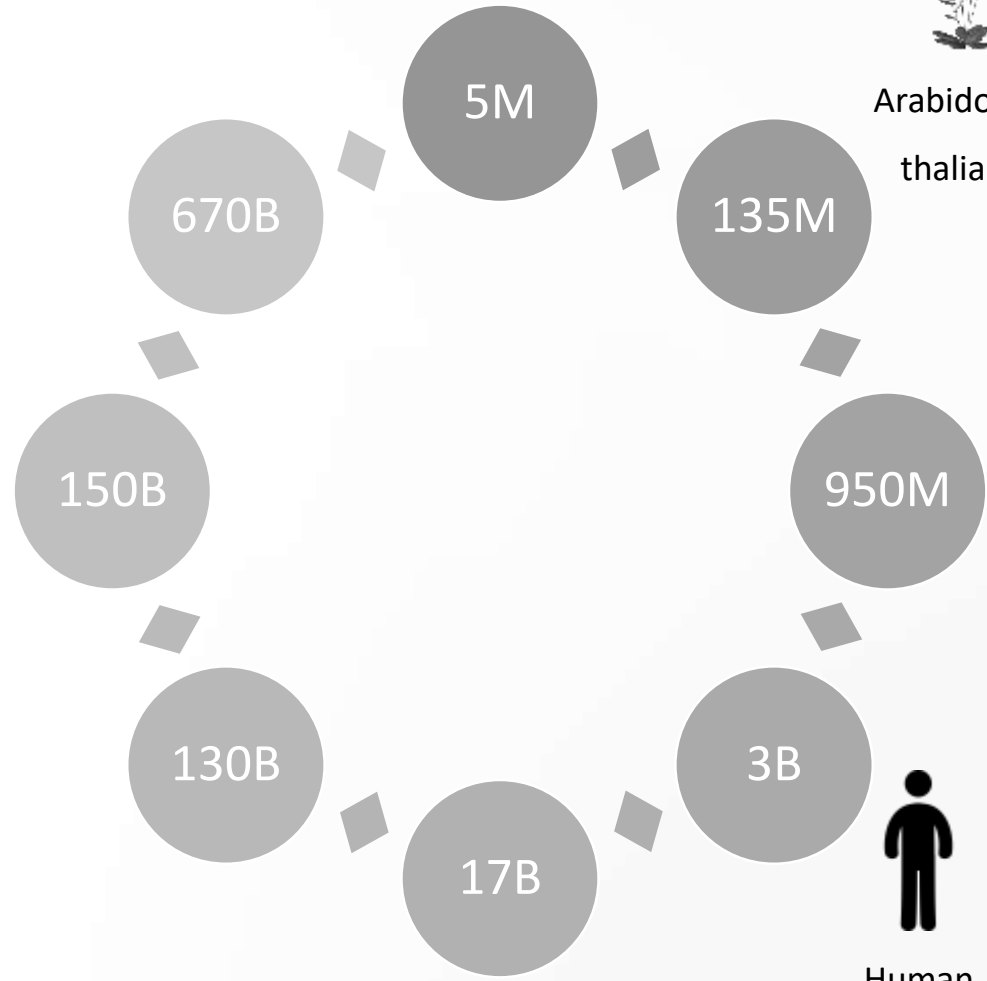
Paris japonica



Tomato



Human



Polychaos dubium



Wheat



Marbled lungfish





Escherichia coli



Arabidopsis thaliana



Paris japonica



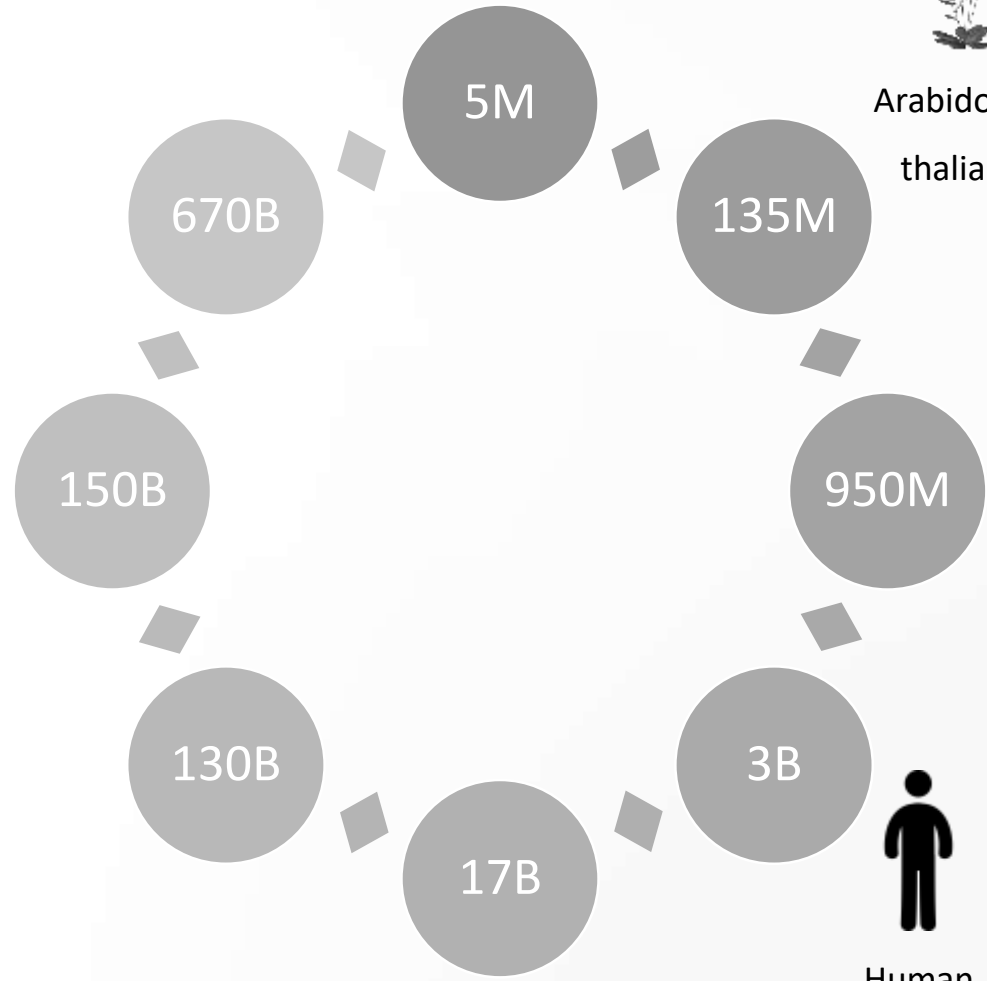
Tomato



Human



Wheat



Polychaos dubium



Marbled lungfish





Escherichia coli



Arabidopsis thaliana



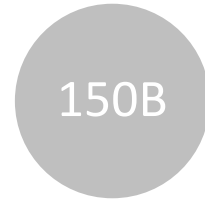
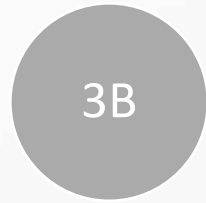
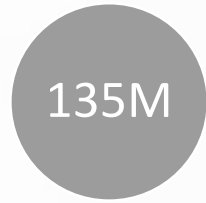
Paris japonica



Tomato



Human



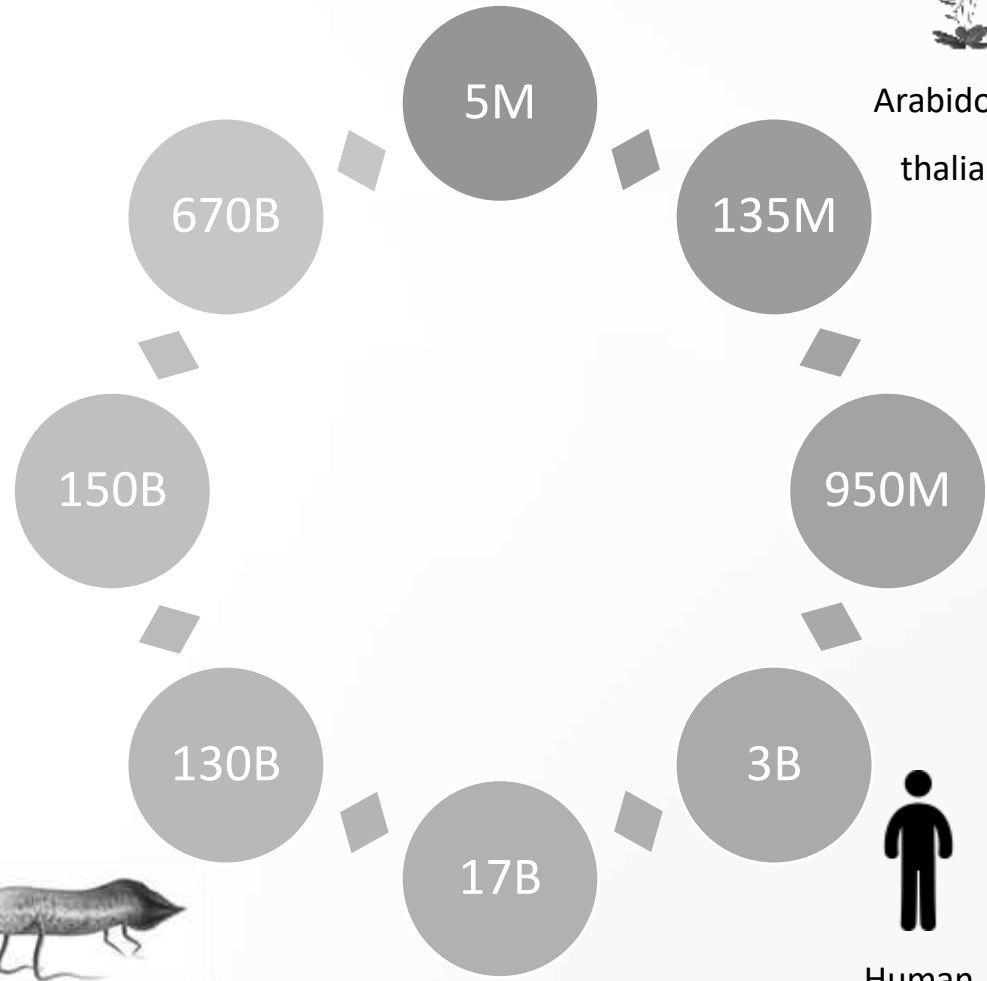
Marbled lungfish



Wheat



Polychaos dubium

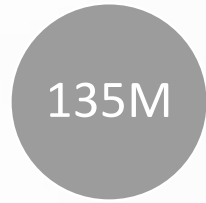




Escherichia coli



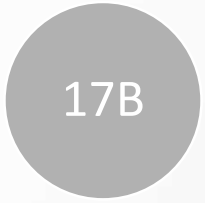
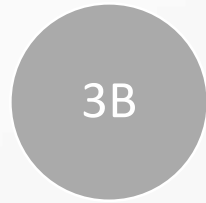
Arabidopsis thaliana



Tomato



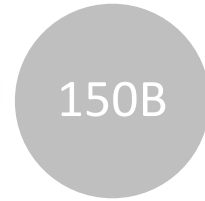
Human



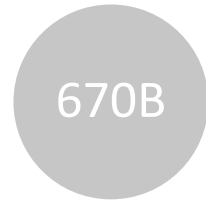
Wheat



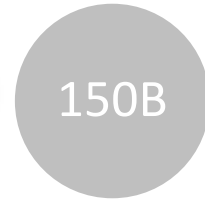
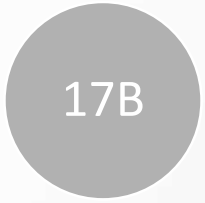
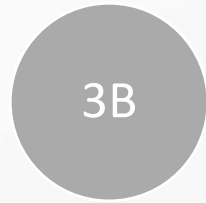
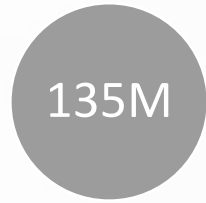
Marbled lungfish

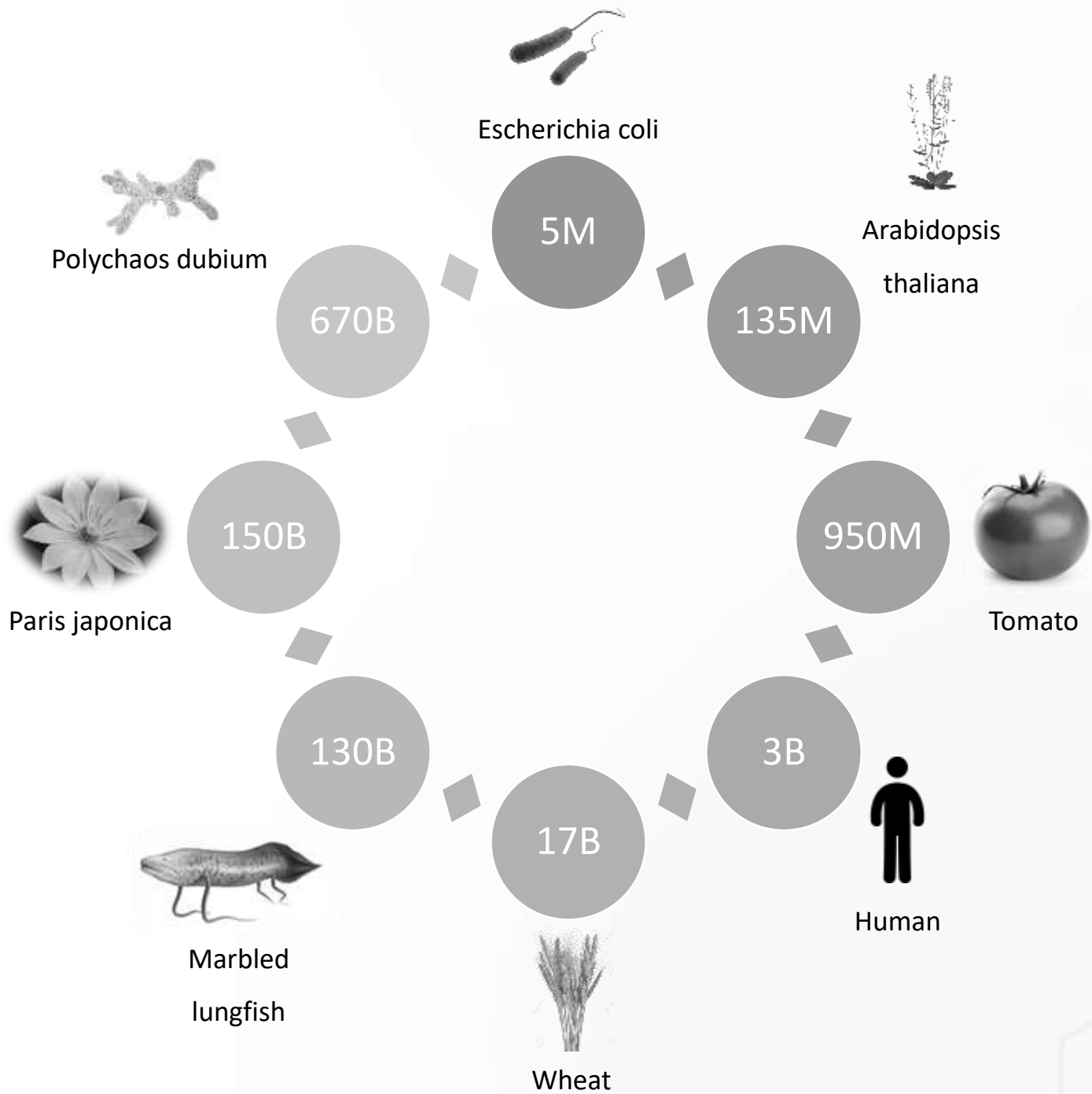


Paris japonica

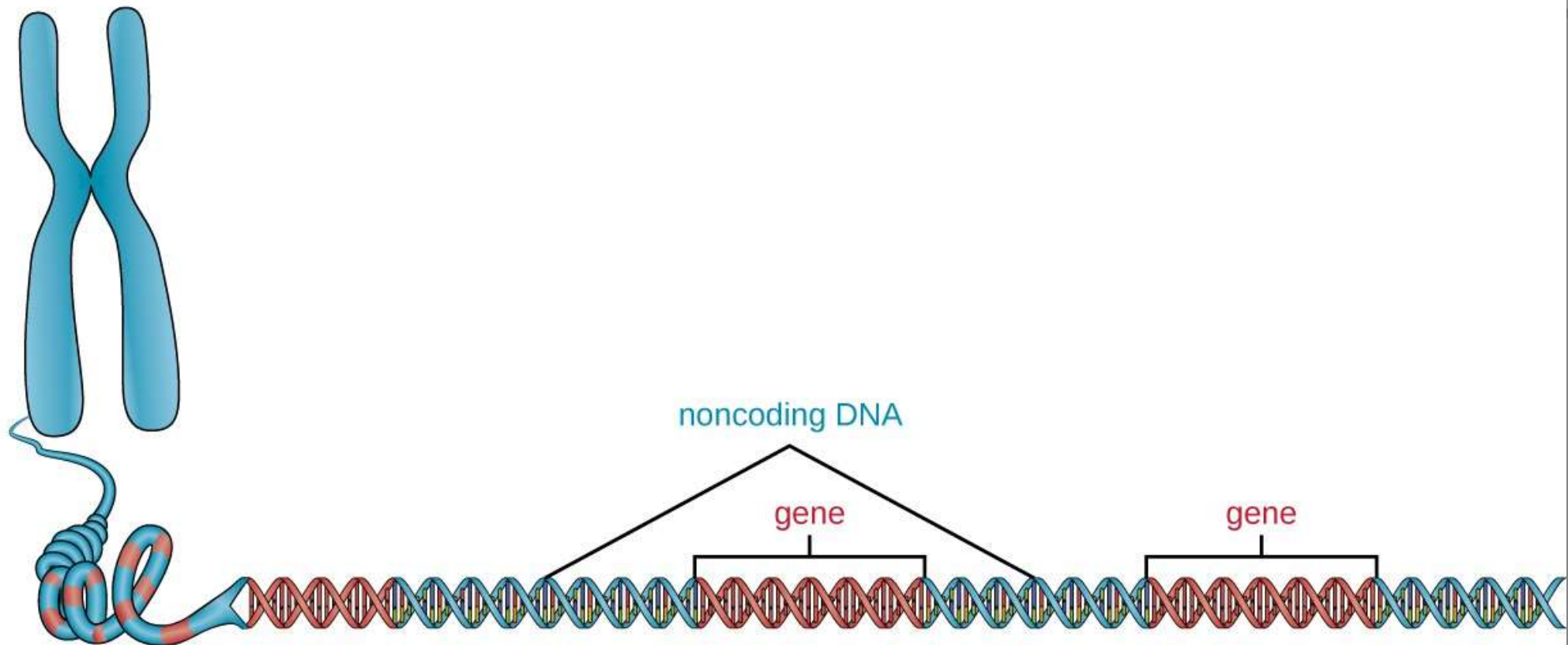


Polychaos dubium

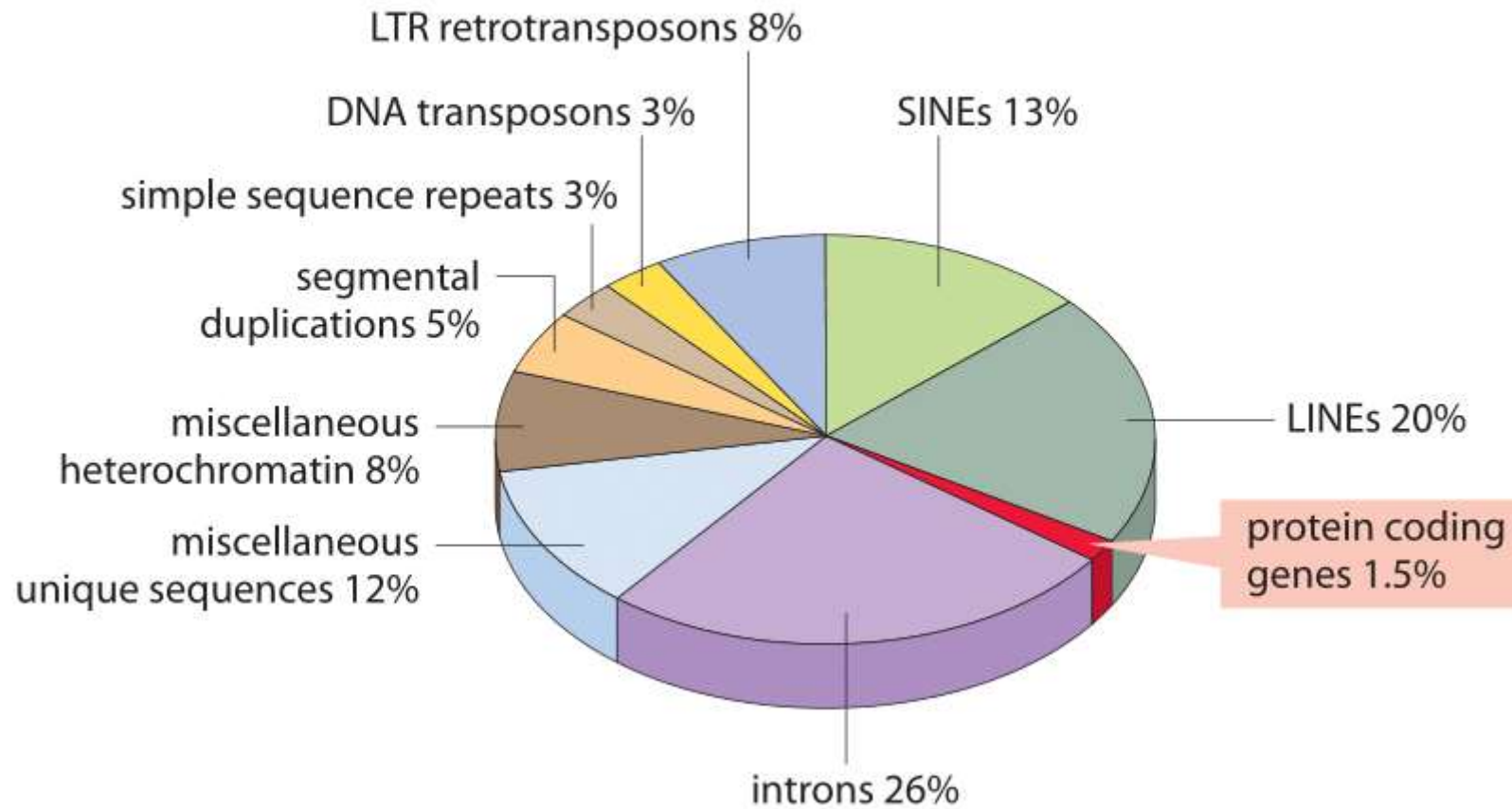




CODING AND NON-CODING PARTS



CODING AND NON-CODING PARTS



Showing 1–50 of 67 results for all: deep learning genome

Search v0.5 released 2018-12-20 Show abstracts Hide abstracts[Advanced Search](#)50 results per page. Sort results by 1. [arXiv:1909.06628](#) [[pdf](#), [other](#)] [cs.LG](#) [stat.ML](#)**Temporal FiLM: Capturing Long-Range Sequence Dependencies with Feature-Wise Modulations****Authors:** Sawyer Birnbaum, Volodymyr Kuleshov, Zayd Enam, Pang Wei Koh, Stefano Ermon**Abstract:** Learning representations that accurately capture long-range dependencies in sequential inputs — including text, audio, and... [More](#)

Submitted 14 September, 2019; originally announced September 2019.

Comments: Accepted to NeurIPS 2019

2. [arXiv:1909.03029](#) [[pdf](#), [other](#)] [cs.LG](#)**Analysis of Big Data Technology for Health Care Services**



WIKIPEDIA
The Free Encyclopedia

[Main page](#)
[Contents](#)
[Featured content](#)
[Current events](#)
[Random article](#)
[Donate to Wikipedia](#)
[Wikipedia store](#)

Interaction

[Help](#)
[About Wikipedia](#)
[Community portal](#)
[Recent changes](#)
[Contact page](#)

Tools

[What links here](#)
[Related changes](#)
[Upload file](#)
[Special pages](#)
[Permanent link](#)
[Page information](#)
[Wikidata item](#)
[Cite this page](#)

Article [Talk](#)



Wiki Loves Monuments: Photograph a monument, help Wikipedia and win!
[Learn more](#)

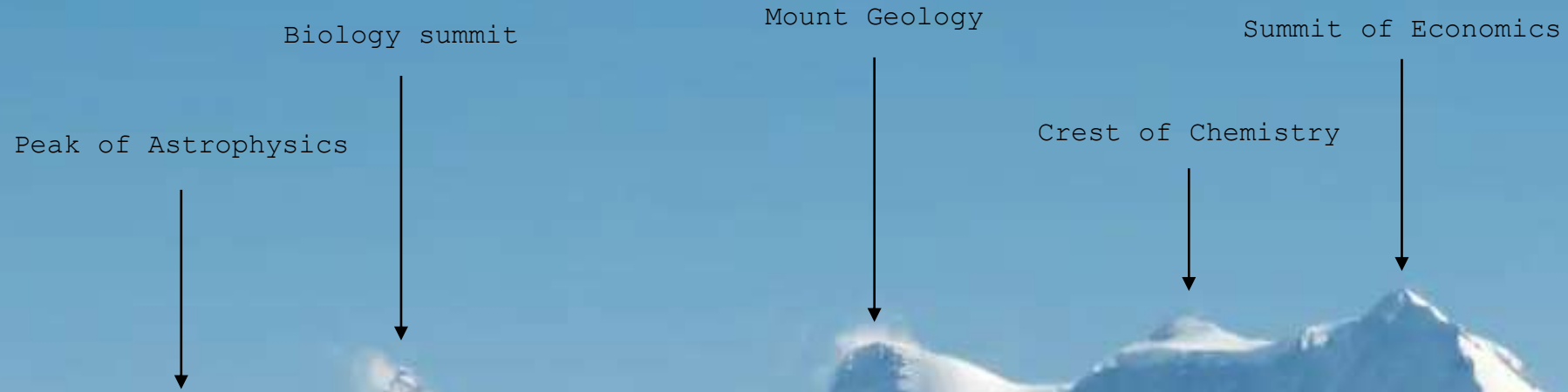
Lists of unsolved problems

From Wikipedia, the free encyclopedia

A **list of unsolved problems** may refer to several [conjectures](#) or [open problems](#) in various academic fields:

- [Unsolved problems in astronomy](#)
- [Unsolved problems in biology](#)
- [Unsolved problems in chemistry](#)
- [Unsolved problems in computer science](#)
- [Unsolved problems in economics](#)
- [Unsolved problems in geoscience](#)
- [Unsolved problems in information theory](#)
- [Unsolved problems in linguistics](#)
- [Unsolved problems in mathematics](#)
- [Unsolved problems in medicine](#)
- [Unsolved problems in neuroscience](#)
- [Unsolved problems in philosophy](#)
- [Unsolved problems in physics](#)
- [Unsolved problems in statistics](#)

LET'S GO CLIMBING!



Sergii Shelpuk
Co-founder & CEO @
DeepTrait
sergii.shelpuk@deeptrait.a
i