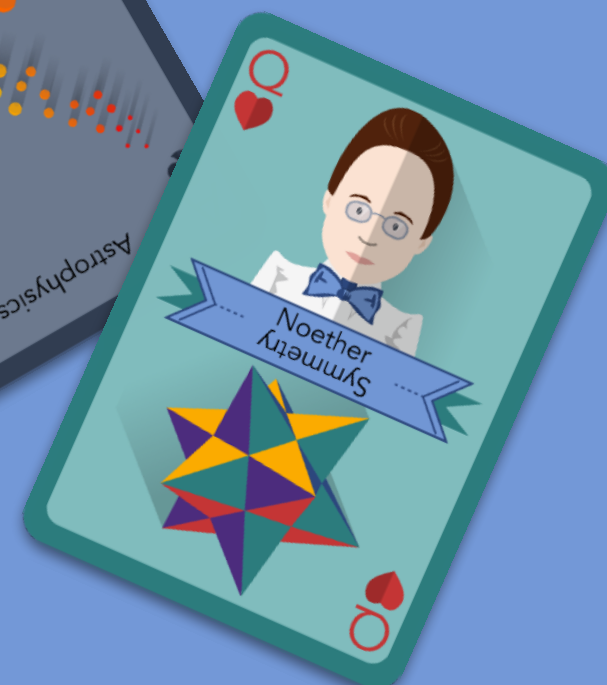
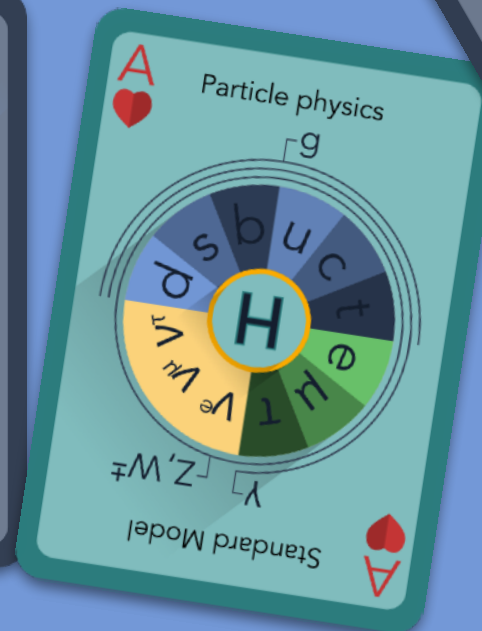
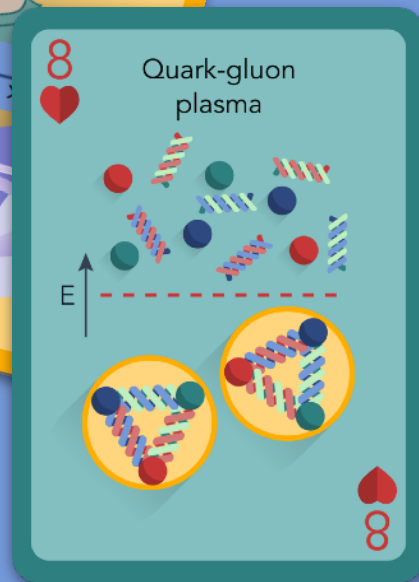
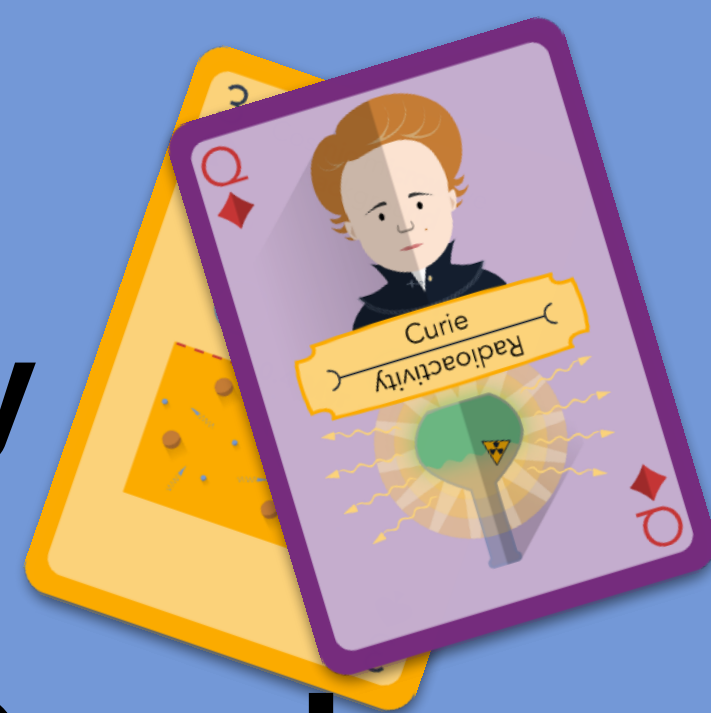


IPPOG meeting, 17.11.21

Mikhail Stolpovskiy

# Deck of Playing Cards about Fundamental Physics





## Fundamental physics playing cards

Project We Love | Grenoble, France | Playing Cards

€7,563

pledged of €7,000 goal

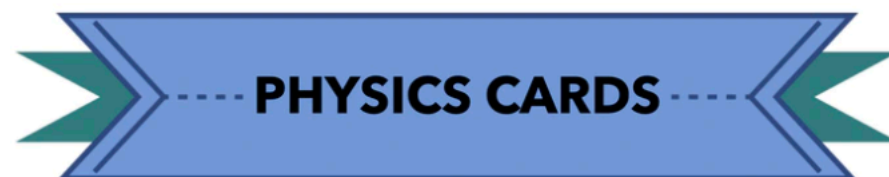
247  
backers

## STORY

## Story

## PROJECT BUDGET

## RISKS



A project about the marvels of the fundamental physics. A deck of playing cards, each card explains one subject, from the elementary constituents of atoms to the entire Universe. I also wrote a [book](#) where each card is explained on a page of text. You can download it on this link for free.

Each suit is dedicated to one branch of physics. Numbers represent the most important phenomena, from the most basic ones (2-6) to the cutting edge of modern research (7-10). Court cards represent physicists who made the most important contribution to the development of this branch and their discoveries. Ace depicts the key concept for the whole branch.

## Project summary.

## Support

Pledge €1 or more

## Thanks a lot!

Thank you for backing my project. Please consider downloading my book and feel free to share it with your friends.

ESTIMATED DELIVERY  
Oct 2021

10 backers

Add-ons

Backer report

NO SURVEYS SENT

Pledge €10 or more

## 1x Physics Playing Cards Deck

- 52 cards + 2 jokers  
- Tuck box

INCLUDES:  
• Deck of physics cardsESTIMATED DELIVERY  
Dec 2021SHIPS TO  
Anywhere in the world

120 backers

Add-ons

Backer report

SURVEY SENT:  
10/25/2021 · 114 responses

Pledge €19 or more

## 2x Physics Playing Cards Deck

2 decks, each of  
- 52 cards + 2 jokers  
- Tuck box

INCLUDES:  
• 2x Deck of physics cardsESTIMATED DELIVERY  
Dec 2021SHIPS TO  
Anywhere in the world

66 backers

Add-ons

**Successful Kickstarter campaign,  
7 Sept - 7 Oct 2021,  
€7563 collected out of  
€7000 goal**

**The cards are currently on the way to the backers**

**Links to join and share:**

**[https://  
www.kickstarter.com/  
projects/physicscards/  
playing-cards-about-  
fundamental-physics](https://www.kickstarter.com/projects/physicscards/playing-cards-about-fundamental-physics)**

**[https://www.facebook.com/  
groups/1016043322480064](https://www.facebook.com/groups/1016043322480064)**

**[https://  
www.instagram.com/  
physicsismyfavoritegame/](https://www.instagram.com/physicsismyfavoritegame/)**

# General idea

Numbers

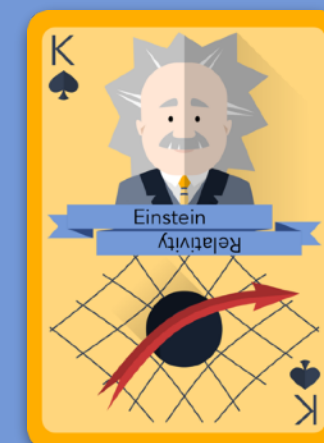
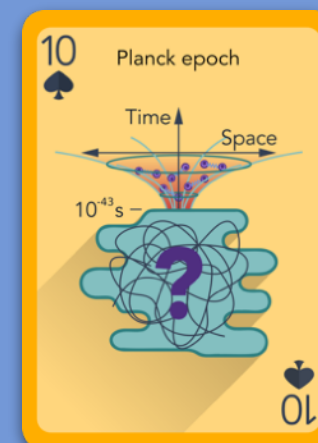
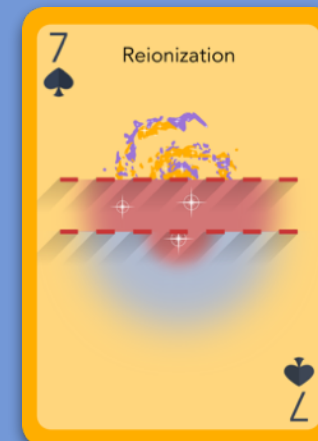
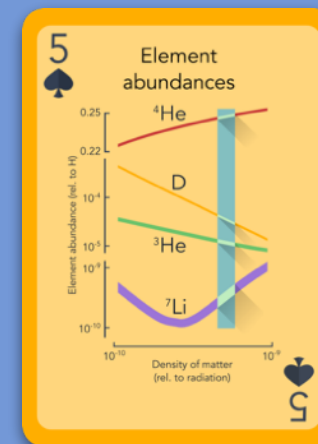
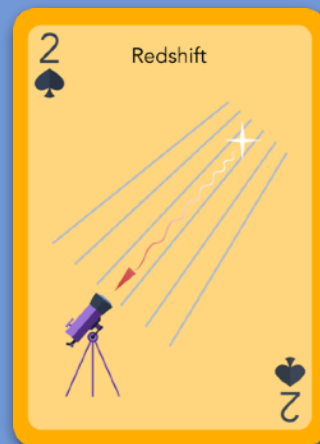
Most  
influential  
scientists

Most  
general  
concept

Main  
discoveries

Some of the  
current  
studies

Perspectives  
of the fields





# Diamonds: Quantum Mechanics



From the Plank equation, photoelectric effect, wave function, Bohr's atom to the superconductivity, studies of the BEC and fusion reactors



# Hearts: Particle Physics



**From Dirac and elementary forces  
to quark-gluon plasma, neutrino oscillations and GUT.**



# Clubs: Astrophysics



From the the Sun and Solar system  
to exoplanets and gravitational waves



# Spades: Cosmology



# From the General Relativity, redshift and notion of the expanding Universe To the dark energy, inflation studies and the Planck epoch

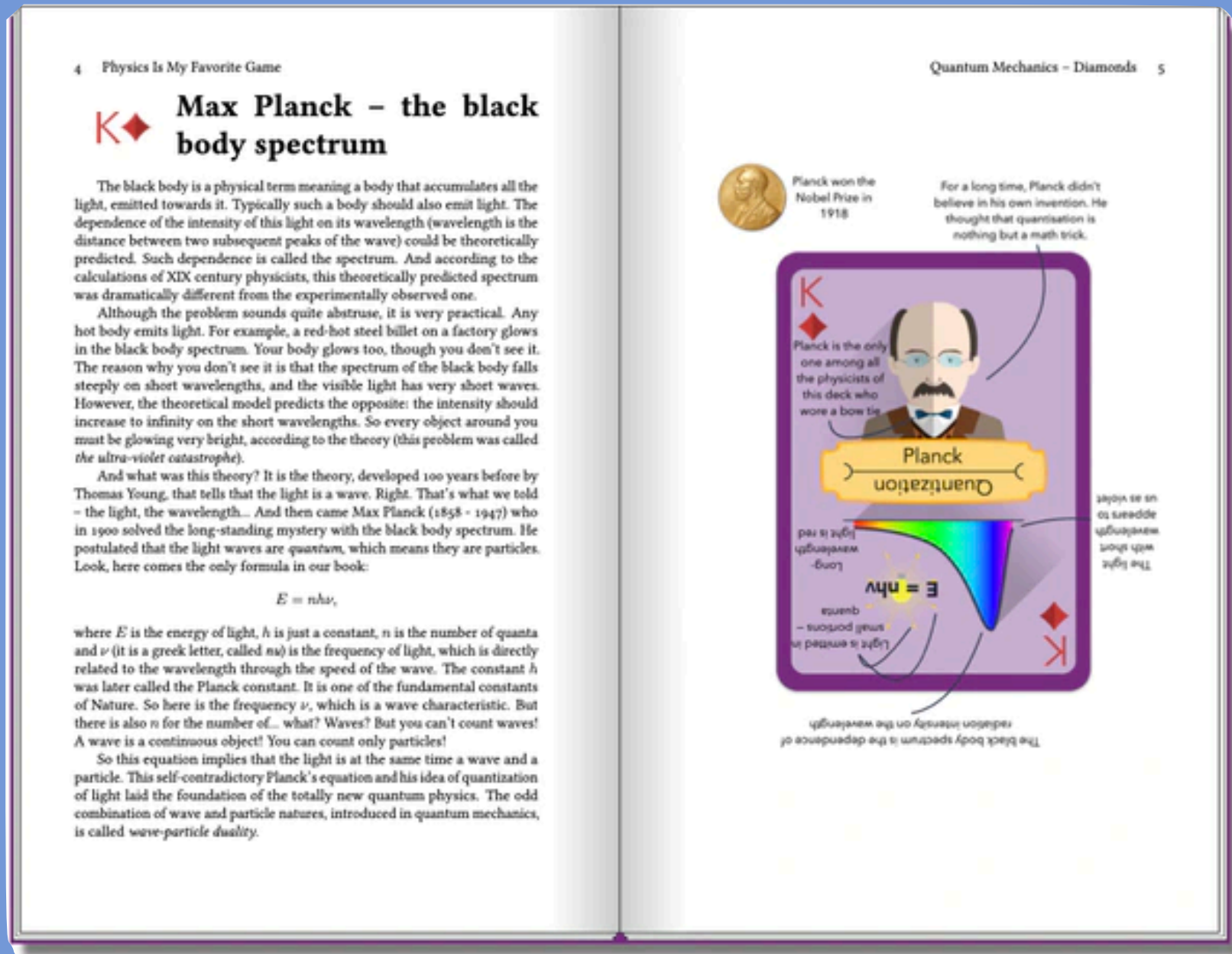


# Jokers: Two Theories to Rule Them All





# Book



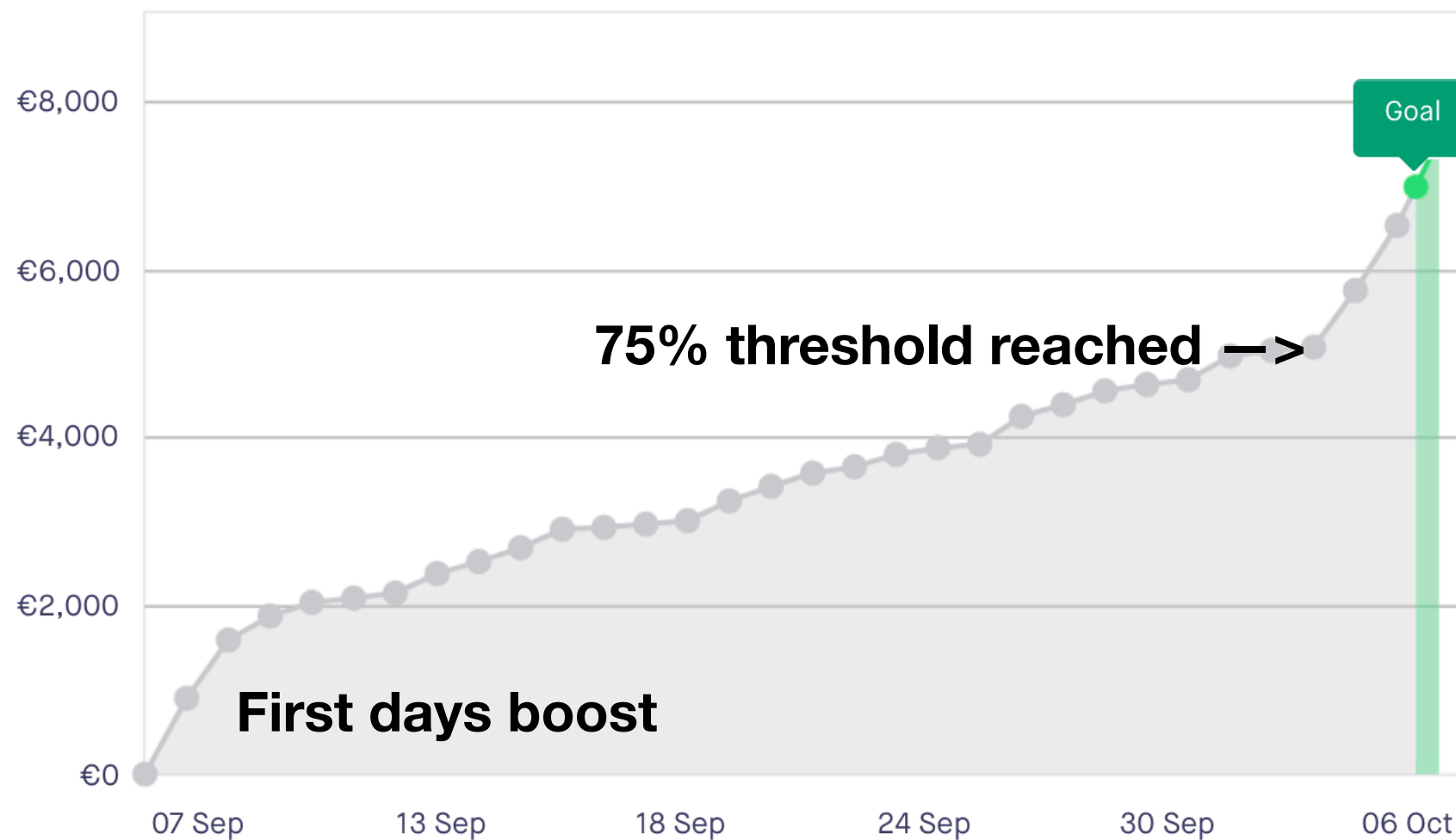
- Every card is explained on one page
- Cards are annotated
- Continuous story, from basic principles to the most advanced studies
- Cards reference to each other
- Suggested materials for the most curious readers
- Free digital version
- Printed version was planned as a stretch goal (not reached)

Special thanks to the proofreaders: Jason Veatch, David Droz, Vladimir Prudkovskiy, Alexander Stolpovskiy

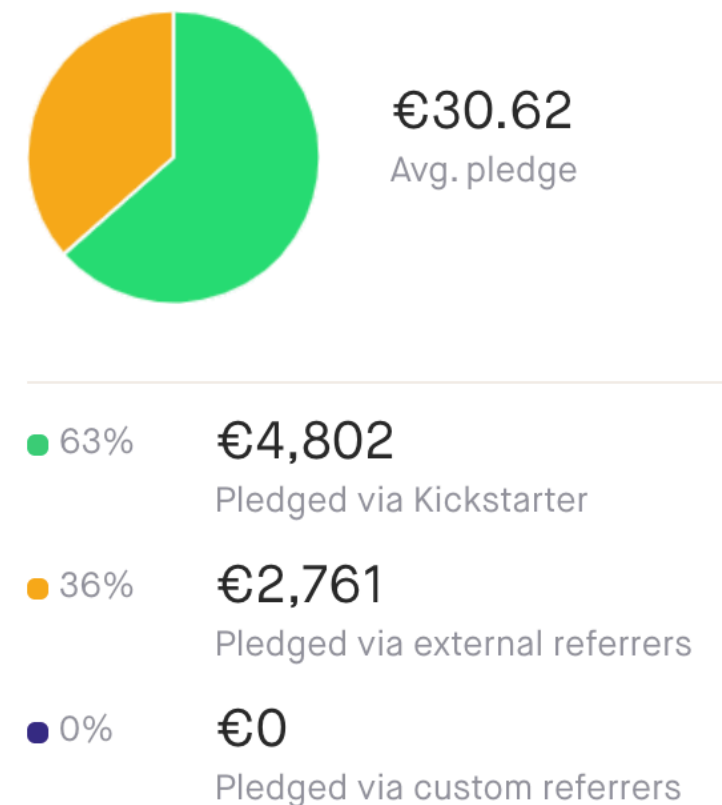
Book is distributed in digital version under the CC license: [https://github.com/MStolpovskiy/Physics\\_cards\\_book](https://github.com/MStolpovskiy/Physics_cards_book)

# Kickstarter campaign

## Funding progress



## Pledges



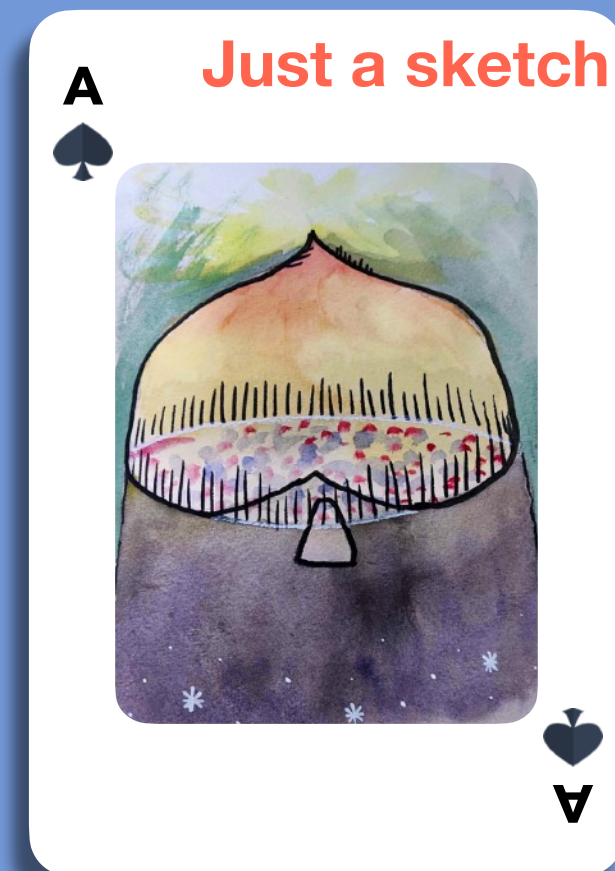
**Most of backers are from  
Kickstarter itself**

**Take away message: want to start a crowdfunding campaign?  
Ask those who did it before!**



# Two more decks are coming

- One deck about the main experiments (while the current one is more about concepts)
  - Same suits: from quantum mechanics to cosmology
  - Style: watercolour and markers
  - Book: not many plans for the moment. Extension of the current book? Short booklet? Or a complete book?
- One about history, from Ancient Greece to the XIXth century
  - Greeks
  - Newton & Co
  - XVIII century: mechanics, thermodynamics
  - XIX century: electromagnetism, statistical mechanics
  - Queens: Most important guys are transformed in their female versions



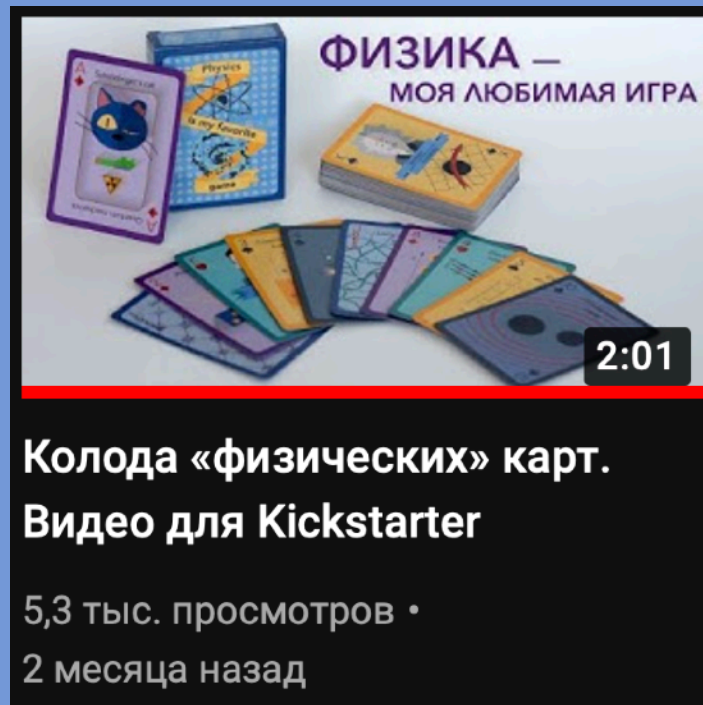
# Collaboration with Vert Dider



Amazing YouTube channel of the very professional outreach enthusiasts

Translation of the English outreach videos to Russian (not only physics):

- Veritasium
- Minute physics
- Stanford lectures
- etc.



Interviews with many interesting persons, see <https://www.youtube.com/channel/UCns-VVpT1KtwsKub0pYwAnA>

Planned series of short cartoons based on my cards. See example on the [Kickstarter page](#) + promotion of the future Russian version of the cards



# Conclusions

- Successful launch of the first physics playing cards crowdfunding project
- Two more decks are in work
- Collaboration with one of the largest outreach YouTube channels in Russia
- Plans for outreach cartoons + Russian version of the cards

