# Veronika Hendrychová

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**EDUCATION** 

**PRESENTATIONS** 

Event organized by the International Association of Physics Students

Updated in May, 2024

École Normale Supérieure, Rennes, France Two-semester Erasmus stay, 1st year of Master's degree in Computer Science	2023 - PRESENT 2020 - 2023
Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering (FNSPE CTU) Graduated with honors from bachelor studies in Mathematical Computer Science	
AWARDS	
"Super Bachelor Thesis" Award of FNSPE CTU	2023
Annual faculty bachelor thesis award	
2 <sup>nd</sup> place in the Rektorys Competition	2023
Presentations of CTU students' scientific works	
Scholarship of the Czech Literary Foundation	2023
Travel scholarship for young scientists	
Merit Scholarships of FNSPE CTU	2021, 2023
Excellent grades, graduation with honors	
"General Alois Liška" Award	2017
Numerous high-school competitions and olympiads	
PUBLICATIONS	
Dvořáková L., Hendrychová V., "String attractors of Rote sequences" Submitted for review to Discrete Mathematics & Theoretical Computer Science	2023

DSB, Montpellier, France	2024
Presented "Mathematical modeling of phylogenetic compression"	
CIRM Week of CoW, Marseille, France	2024
Invited talk "String attractors of Rote sequences"	
SeqBIM, Lille, France	2023
Presented "Mathematical model of phylogenetic compression"	
Visit at the Inria/IRISA Institute, Rennes, France	1 week, 2023
Invited talk "String attractors of infinite words"	
Student conferences of the TIGR Research Group, Czechia	2024, 2023, 2022
Talks on the topic of String Attractors	
Moderator of the Physics Education session of "IAPS at a distance", online	2020

#### **PROJECTS**

# Mathematical Model of Phylogenetic Compression Under Dr. Karel Břinda (Inria, France) String Attractors of Pseudostandard and Rote Words Under Prof. Ľubomíra Dvořáková (CTU, Czechia) and Dr. Karel Břinda (Inria, France)

Under Prof. Ľubomíra Dvořáková (CTU, Czechia)

CERN HSS Internship Programme, Switzerland 2 weeks, 2017

Internship in CERN for 24 selected high-school students from Czechia

Other projects published at https://github.com/vercah

## **TEACHING, TUTORING**

**Constant Gap Sequences** 

### Lecturer at Science summer camps for children (FSci CUNI) 2018 - 2023

Various physics programs for children aged 10-15

Project supervisor at Science Week (FNSPE CTU) 2 days, 2023

Supervised group of high-school students

Math and English tutoring 2019 - 2020

Individual tutoring of a middle-school student

#### **WORK EXPERIENCE**

#### Member of the leadership of FYKOS (FMP, CUNI)

2020 - PRESENT

1 month, 2021

- Students' group at the Faculty of Mathematics and Physics, Charles University
- Organizing several major annual events and competitions in physics for high-school students
- Annually coordinating project management of these events
  - Fyziklani in-presence team physics competition in Prague, last year ~ 1200 participants from 21 countries
  - FYKOS Correspondence Competition correspondence contest, ~ 200 participants, 6 rounds a year
  - FYKOS Camps two week-long camps a year for the best participants of the Correspondence Competition
  - o Physics Brawl Online online team physics competition, last year ~ 3900 participants from 62 countries
  - Day with experimental physics free excursions to scientific laboratories for ~100 high school students

#### IT developer of FYKOS

2020 - PRESENT

- Developing and maintaining several static websites using Nette framework and dokuwiki, deployment on server
- Maintaining SQL database of participants and its web application
- Providing IT support for both organizers and participants of the competitions

#### Database administrator and organizer of Science Week (FNSPE, CTU)

3 months, 2022

- One-week event for 150 high-school students, focused on popularization of physics
- Maintaining the database, communication with participants, maintenance of the website on the server

#### LANGUAGES

- Czech (native speaker)
- English (C2, CAE Certificate)

- Spanish (B2, self-estimated)
- French (B1, self-estimated)

#### KEY COURSES TAKEN

**Mathematics** – Calculus (4 semesters), Linear Algebra (2 semesters), Algebra, Discrete Mathematics (4 semesters), Differential Equations, Numerical Mathematics (2 semesters), Probability and Statistics, Complex Functions, Coding Theory **Computer Science** – Programming in C++ (3 semesters), Linear Programming, Introduction to Algorithms, Introduction to UNIX, Computer Graphics (2 semesters), Introduction to Java, Complexity Theory, Coq Basics, Experimental Bioinformatics