Curriculum Vitae

Konstantinos Bizanos

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1   General Information

(a) **Name:** Konstantinos Bizanos

(b) **Date of Birth:** 07/07/2000

(c) **Residence:** Vyronas, Athens, Greece Postal Code 16231

(d) **Personal Email:** kostasbizanos@gmail.com

(e) **Academic Email:** bizanosk@math.uoa.gr

(f) **Personal Website:** https://bizanosk.github.io/

2   Education

(a) • **High School:** (2015-2018) Third High School of Vyronas
  • **Graduation Grade:** 19.7/20

(b) • **Bachelor's Degree in Mathematics** from the National and Kapodistrian University of Athens.
  • Direction: Pure Mathematics
  • **Degree Grade:** 9.46/10
  • Study Period: 2018 - 2022

(c) • **Master's Student in Pure Mathematics** at the National and Kapodistrian University of Athens.
  • Research interests primarily in Algebra, specifically Homological Algebra and Category Theory.
  • Dissertation Title: "All modules have flat covers."
  • **GPA:** 9.66/10
  • Study Period : October 2022 - February 2025

3   Work Experience (Non-Mathematical)

During my early academic years, I worked as a sales representative. In the summer of 2019, I was employed at the company *Intense* as a sales associate.

4   Teaching Experience

Below is a list of the courses I have taught, either through private tutoring or at tutoring centers. The university names mentioned next to the courses I have taught (e.g., Ordinary Differential Equations (N.K.U.A.)) indicate that the student(s) I taught were enrolled at the respective university, and the course material corresponds to that university's curriculum.

4.1   Academic Year 2018/19

i. High School Mathematics

ii. Tutorial Center *Poukamisas*: Assisted students in exam preparation by providing guidance and clarifying doubts.

4.2   Academic Year 2019/20

i. High School Mathematics

4.3 Academic Year 2020/21

  i. High School Mathematics

 ii. Ordinary Differential Equations (Surveying Engineering Department, NTUA) (Tutor)

4.4 Academic Year 2021/22

  i. High School Mathematics

 ii. Mathematical Analysis (Surveying Engineering Department, NTUA) (Tutor)

iii. Real Analysis (Mathematics Department, NKUA) (Tutor)

 iv. Differential Geometry of Curves and Surfaces (Mathematics Department, NKUA) (Tutor)

  v. Ordinary Differential Equations (Mathematics Department, NKUA) (Tutor)

 vi. Linear Algebra I (Mathematics Department, NKUA) (Tutor)

4.5 Academic Year 2022/23

  i. High School Mathematics

 ii. Basic Algebra (Mathematics Department, NKUA) (Tutor)

iii. Probability Theory I (Mathematics Department, NKUA) (Tutor)

 iv. Linear Algebra and Analytical Geometry (Surveying Engineering Department, NTUA) (Tutor)

  v. Mathematics for Chemists (Chemistry Department, University of Patras) (Tutor)

 vi. Ordinary Differential Equations (Mathematics Department, NKUA) (Tutor)

4.6 Academic Year 2023/24

  i. High School Mathematics

 ii. Basic Algebra (Mathematics Department, NKUA) (Tutor)

iii. Differential Geometry of Curves and Surfaces (Mathematics Department, NKUA) (Tutor)

 iv. Ordinary Differential Equations (Mathematics Department, NKUA) (Tutor)

4.7 Upcoming Courses in 2024/25

  i. Differential Geometry of Curves and Surfaces (Mathematics Department, NKUA) (Tutor)

 ii. Basic Mathematical Methods in Physics (Physics Department, NKUA) (Tutor)

iii. Mathematical Analysis I (Physics Department, NKUA) (Tutor)

 iv. High School Mathematics

  v. Statistics and Probabilities for Psychologists (Department of Psychology | Maastricht University) (Tutor)

 vi. Linear Algebra II (Mathematics Department, NKUA) (Tutor)

vii. Ordinary Differential Equations (Mathematics Department, NKUA) (Tutor)

viii. Number Theory (Mathematics Department, NKUA) (Tutor)

ix. Real Analysis (Mathematics Department, NKUA) (Tutor)

x. Basic Algebra (Mathematics Department, NKUA) (Tutor)

5 Books

I am currently co-authoring a book on Differential Geometry of Curves and Surfaces in collaboration with the tutoring center SupM. This project aims to provide a comprehensive resource for students and professionals alike, covering essential topics in this fundamental area of mathematics.

In the future, we plan to expand our efforts by writing two additional books—one on Abstract Algebra and another on Linear Algebra.

6 Notes and Solved Exercises

(a) I have compiled comprehensive notes in LaTeX format for the following courses:

   i. Linear Algebra II
   ii. Ordinary Differential Equations
   iii. Homological Algebra and Categories
   iv. Riemannian Geometry

   Currently working on notes for:

   i. Commutative Algebra
   ii. Differential Geometry of Curves and Surfaces
   iii. Algebraic Number Theory

(b) I have also compiled exercise packages in LaTeX format for the following subjects:

   i. Calculus III (Multivariable Analysis)
   ii. Ordinary Differential Equations
   iii. Set Theory (collaborated with Alexandros Vlachos)
   iv. Galois Theory
   v. Ring and Module Theory
   vi. Mathematical Logic
   vii. Commutative Algebra
   viii. Differential Geometry of Curves and Surfaces
   ix. Homological Algebra and Categories
   x. Group Theory (Postgraduate)
   xi. Algebraic Topology (Postgraduate)
   xii. Manifold Theory (Postgraduate)
   xiii. Representations of Finite Groups (Postgraduate)
   xiv. Algebraic Geometry (Postgraduate, Under Construction)

7   Volunteer Work

- Since my undergraduate studies, I have written a series of notes and solved exercises aimed at helping both undergraduate and postgraduate students prepare for exams, maintaining mathematical rigor and intuition.

- In 2021, a volunteer group in the Mathematics Department was formed, collecting lecture notes and past exam papers. I have been actively involved since the group's inception, and it continues to attract new undergraduate students eager to assist.

- Since the academic year 2023/24, I have served as president of the postgraduate and PhD student association in the Mathematics Department. The goal is to bridge communication between the university and postgraduate students, discussing program-related issues and proposing solutions.

- I am a co-organizer of the Mathematics Club, in collaboration with friends of mine and colleagues Anastasios Fragkos and Ioannis Oikonomidis, where we organize weekly student seminars divided into Pure Mathematics, Applied Mathematics, and Statistics.

8   Technical and Language Skills

(a) Excellent command of LaTeX and proficiency in Microsoft Office

(b) Basic knowledge of programming in MATLAB and Python

(c) English Level and Certificates: TOEFL Score: 95/120

9   Research Interests

My mathematical interests lie at the intersection of algebra and geometry, with a strong foundation in commutative and homological algebra. This background has provided me with the tools to explore deeper structures within mathematics and has fueled my current focus on Algebraic Geometry. In addition, I am intrigued by the field of representation theory, especially its connections with category theory. This blend of representation theory and categorical frameworks offers a powerful perspective on symmetries and transformations within various mathematical systems, which I am eager to explore further in my doctoral studies.

10   Personal Interests

Although my free time is limited, I enjoy spending it with friends or pursuing hobbies. I am fond of sports and music (especially playing drums), as these activities help me relax and relieve stress.