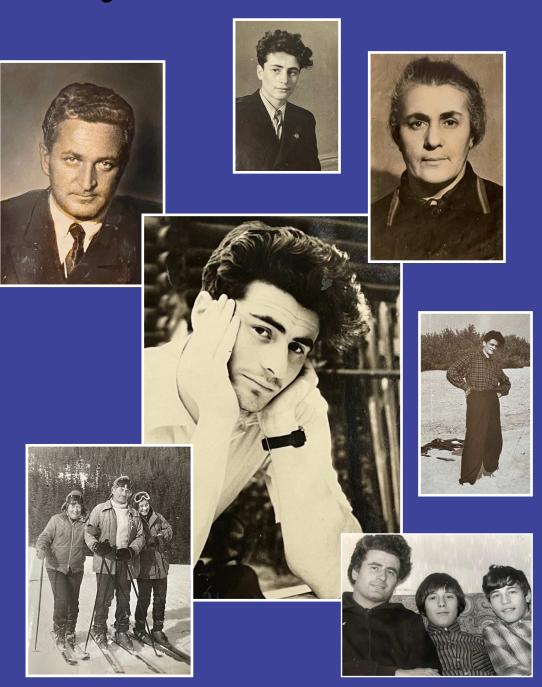
## Rafail Khasminskii

# My Life in the USSR



### Rafail Khasminskii

## My Life in the USSR

To my beloved Lida

Detroit - Reston, 2021

#### 1931–1941

On June 6, 1931, I was born in the Kuntsevo, Moscow region on the same day as Pushkin, of which I have always been proud. My father, Solomon (Zalman), Naumovich Khasminskii, was the Deputy Chief Engineer of a textile factory in Kuntsevo, now part of Moscow. Back then it was pretty far away from Moscow - about half an hour trip by bus on Mozhaisk highway.

The factory, then No. 14, later named after Peter Alekseev, was an elite factory where they made fabrics for the Kremlin. Before the revolution it belonged to a German manufacturer. The engineers and machine tools were from Germany, so the quality of the fabrics was high. We lived in a four-story brick building called the "German house," built for German engineers before the revolution. Thus, the apartments were quite comfortable for those times. Our family at that time consisted of four people: Dad, my Mom, Minna Rafailovna, my older brother Herman, and me. Having two sons, my mother dreamed of a daughter. However, in 1940, Igor was born, and everyone loved him very much. Dad was



My mom and dad. Solomon (Zalman) Naumovich and Minna Rafailovna.

extremely popular in the factory; he was a member of the factory committee (factory trade union committee). People often turned to him, and he tried to help everyone. I once asked him, "Are you a Bolshevik?" ... He replied: "I, my child, am a non-party Bolshevik."

I grew up at home until I was four. I had a nanny, Olya, who took me for walks. She came to work in the Mozhaisk region. I nicknamed her "Olyushka-sudarushka, a young grandmother".

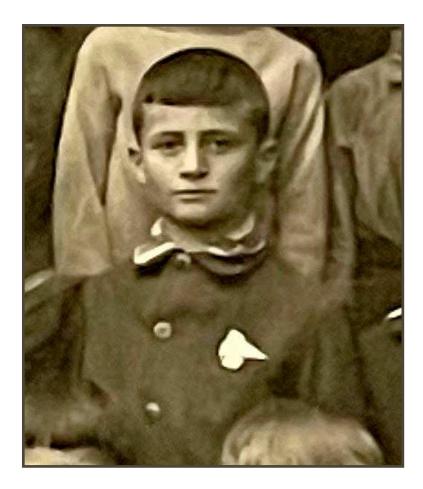
At the beginning of the war, she went back to her family where Germans occupied the village, and she was killed.

In my early childhood, I enjoyed learning to read and count. I remember, at the age of four, I played with cubes with letters and, playing, typed the word VOROSHILOV, last name of a famous military officer at the time. Mom saw this, threw up her hands, and ran to a neighbor to boast. They both praised me, so I remembered this incident.

In 1935, I went to a preschool at a factory where my mother worked as a teacher. The school was excellent, and the Director was Zinaida Gavrilovna Ordzhonikidze, the wife of the popular People's Commissar of Heavy Industry Sergo Ordzhonikidze. However, everything changed in 1937. Zinaida disappeared and we read in the paper that Sergo had died of a heart attack. Much later we learned about Stalin's mass repression, about Sergo shooting himself instead of waiting to be arrested. At the commemoration ceremony for her husband Sergo, Zinaida ran screaming up to Beria, Chief of the Soviet Security. She shook her fists at him while making accusations. After that she never returned to work, and we later learned she had been sentenced to ten years in the camps. The situation at my school deteriorated sharply, and my mother left her position and took me with her.

I began to read books and even tried to write poetry. I only remember the beginning of one of them: "Spring is coming, and the bees are already collecting honey".

In 1939, I went to school #1 in the city of Kuntsevo. Our teacher was Donna Naumovna, a particularly good person and an excellent teacher. I studied with great enthusiasm and joined an amateur group of actors. In 1941 we took part in the district review of amateur performances, won, and were nominated for the regional review, which took place on Sunday, June 22, in the Column Hall of the House of Unions. We gathered at the local club "Zavety Ilyich" at 8 am and waited for the bus that was supposed to take us to the House of Unions. However, the bus did not come, and at



First grade.

noon, it became known that the war had begun, as reported by Molotov on the radio.

#### 1941–1945

The war drastically changed our lives. Almost every day, there were air raids, and we spent a lot of time in bomb shelters. The Germans advanced quickly. Dad was afraid for us. He decided to send my mother and me to Kazan, where his half-brother Miron, his mother's son from his first marriage, lived with his family. However, in Kazan, they were not very friendly. They offered us a room to rent in the village. Mom rented a room in the village of Tetyushi on the banks of the Volga river. Dad stayed to work at the factory in Kuntsevo, and he had a special dispensation according to which he was not subject to conscription. He sent us the bulk of his salary, so he lived from hand-to-mouth, but we only had enough money to buy dependent cards, used for bread, fats, and sugar and to pay for housing. Mom learned to make potato pancakes - cakes from potato peelings, which replaced bread and was not enough. It was difficult for everyone, but especially for Igor, who was one and a half years old.

Very soon, dad realized that we could not survive this

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way. He wanted to be transferred to a textile factory east of the country. He succeeded and was sent to a textile factory in the city of Biysk, Altai Territory. Dad came to Kazan for us, and we all went to Novosibirsk. We rode in a booth with bunks, a freight car adapted for transporting people. There was an iron stove in the middle of the vehicle. There was no toilet, but the train often stopped, and people left the carriages when needed. Once when I had to go out because of great need, the train suddenly started to move. I stretched out my hands with my pants down, my dad picked me up, and I found myself in the carriage without pants amid general laughter. I think that if it were not for my dad, I would have disappeared. The place was wild with forest all around. Our train journey took seven to ten days.

In Novosibirsk, we stayed with my father's brother. They were a perfect family and cared for us, although we arrived dirty, hungry, and with lice. Soon their sons, Gena and Borya, had lice, so we all fought the lice together. Dad went to Biysk to get a job and an apartment and furnish it. Then, we arrived in Biysk, and it seemed that now everything would be fine; but it was not.

Soon, a compaign was announced to create a volunteer Stalinist division of the Altai and Siberians. Disorder came to

the factory. Dad was summoned to the party committee and offered the opportunity to apply for admission to this division. He explained that he had three children, the youngest of whom was one and a half years old, and he was the only breadwinner. They told him that if he signed up as a volunteer, they would take care of the family. However, if he did not sign up, they would remove his dispensation and mobilize, and no one would take care of the family. It was a gross deception, but my father had no choice and agreed. He was sent to the front near Moscow, between Vyazma and Rzhev, and we were immediately evicted from a separate two-room apartment into a communal room. We were left without any means of subsistence. To buy groceries with ration cards, my mother handed over all her jewelry to the pawnshop. She wrote to her sisters Beta and Nyura about her plight. Soon Betya, Berta Rafailovna, sent a reply. She invited us to move to the city of Tomsk.

First, we often received letters from my father. He expressed his indignance at the factory bosses' vile behavior. He also reminded us to remove the potatoes, which he and I planted on the site allocated by the factory. He wrote that, as a literate person, he was put on paperwork duty. He made lists of available soldiers and regretted that he could not

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participate in military exercises.

Betya and her husband, Uncle Yasha, Iosif Grigorievich Ravkin, worked at the Institute of Psychiatry of the Ministry of Health of the RSFR on Poteshnaya Street in Moscow. He was a Department Head, and she was a PhD researcher. During the war, their institute was evacuated to the outskirts of Tomsk, to a village called Psychiatric Hospital. There was indeed a large psychiatric hospital, that a military hospital had occupied during the war. Uncle Yasha was a prominent psychiatrist. In particular, he invented an extremely popular medicine that was named after him, Potion of Ravkin. Betya and Yasha did not have children, but my grandmother, Maria Osipovna, lived with them.

Soon after receiving the letter from Betya, my mother, Igor, and I went to Tomsk. Herman, who at that time was 17 years old, stayed in Biysk for a while. The potatoes planted on the site had not yet grown. They were of great value at that time, and we could not abandon those potatoes. Herman stayed in Biysk to harvest potatoes and sell them. Afterward, he came to Tomsk at the beginning of the school year.

I remember how we went to Tomsk: my mother with a suitcase and Igor in her arms and me with a bag in which there was a big jewel - a live chicken. Mom bought this chicken at the market in Biysk. It laid an egg every day. These eggs were very valuable. In Tomsk, we were greeted with joy. There was no more hunger; Betya and Yasha were like second parents for us. I went to school there, played outside with other children, and sometimes attended concerts given by visiting artists for wounded soldiers. I especially remember the concert of the young Claudia Shulzhenko.

We were distraught that there had been no letters from Dad for a long time. In the winter of 1942–1943, my mother received a notice that Father had died in a battle near the village of Sychevka, between Vyazma and Rzhev. It was a huge blow. My Mother often cried, trying to hide it from the children. The government began to pay penny pensions as she was a widow of a private and mother of two minor children (Herman became an adult in April 1943).

In the summer of the same year, after graduating from school, Herman was drafted into the army and sent to an artillery school. From 1945, he served in the army in Germany until demobilization.

Later, in the 70s, my mother, Igor, and I went to look for my father's grave in Sychevka. We did not find any graves but found only a mass grave in the neighboring village of Toropchino. On the obelisk of this mass grave were the numbers of those military units whose soldiers were buried there. The number of units was huge, which testified to the enormous losses in these places.

Our lives in Tomsk were relatively prosperous. Betya and Yasha sometimes allowed us to buy pinecones so we could snack on pine nuts.

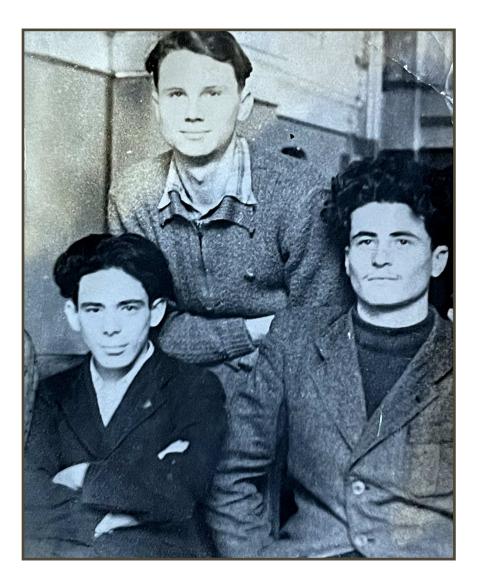
In the winter of 1943-1944, the Institute of Psychiatry returned to Moscow, and we came back too. Instead of an apartment, my mother was given a room in the same house in Kuntsevo and settled there with Igor. I stayed with Betya and Yasha in their apartment in Moscow on Frunze Street (now Znamenka). The house had three levels and was located in the back of the courtyard, opposite the new building of the People's Commissariat of Defense. I went to study at school number 64, which was located next to my house. The school was small and had only Grades 1 to 5. Thereafter, in 1944, I was transferred to School No. 73 on Serebryany Lane on the Arbat. I studied there for two years. I was an active pioneer and was elected chairman of the squad council. I remember how enthusiastically we went to red square on May 9, 1945 for the Victory Day celebration.

#### 1945-1949

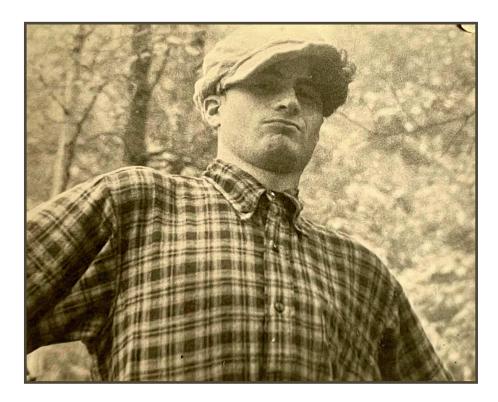
1946, I ended up in school number 59 on In Starokonyushenny Lane on the Arbat. At that time, there was a good director, David Natanovich Rosenbaum. I liked our mathematics teacher, Tatyana Nikolaevna Fidelli. Another mathematics teacher excellent was Ivan Vasilievich Morozkin. Many warm words about him were written by Dima Arnold, the outstanding mathematician of our time, who studied with him. At this school, I found many friends with whom I still communicate. Additionally, Betya and Yasha decided that it was helpful for me to know English well. We looked far ahead! They found me a private teacher with whom I studied for one and a half years. In our school, English was taught by a teacher named Kurillo. She did not know English very well and often made mistakes. I foolishly pointed out these mistakes. This made her very agitated, and she often shouted," Khasminskii, shut up!".

Meanwhile, the anti-cosmopolitan campaign began in the country. It was a disguised antisemitic campaign in the USSR where jews were characterized as rootless cosmopolitans and were targeted for persecution. The school director was fired in 1948, and a mediocre official replaced



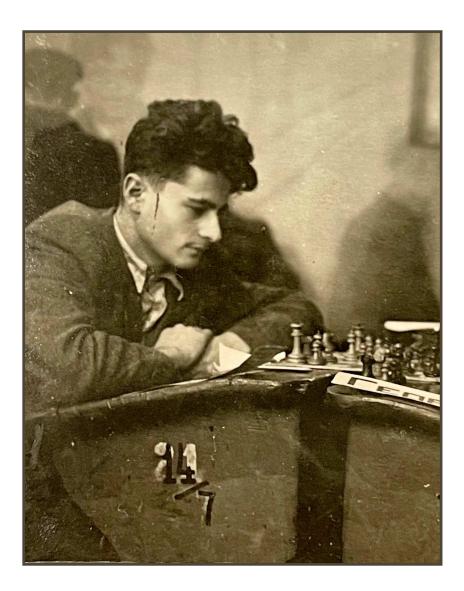


School friends. Hazanov Sasha ( on left) and Strelkov Sasha ( standing).



King of the hill.

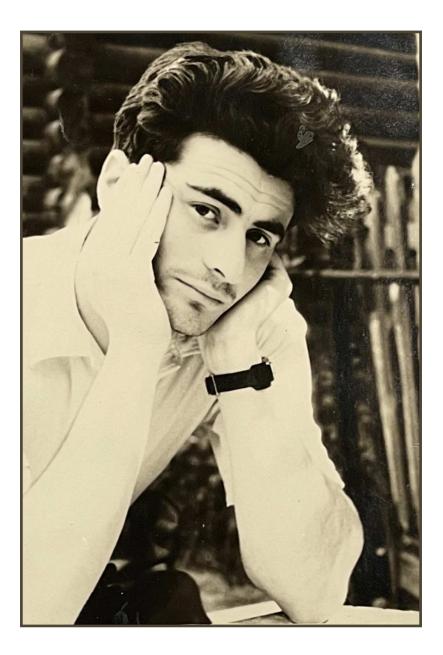
him. Nonetheless, I continued to study hard. In 1949, I took part in the mathematical (second prize) and chemistry (third prize) Olympiads at Moscow State University. I did not receive all A medal at the graduation because I received B in English (from Kurillo). At the graduation party Kurillo quietly approached me from behind and said, "Well, Khasminskii, have I ruined your life greatly?" I disappointed her, as I answered sincerely: "Oh no, I don't give a damn about that!" I was confident in myself, and I believed that I could easily pass any exams, so I did not need a medal. The question was quite tricky: what major should I choose? I really liked mathematics, but in the 9th grade, I read Paul de Kruif's book "Hunters for Microbes," and I also wanted to hunt for them and become a microbiologist. I shared these thoughts with Uncle Yasha. It was a difficult time for him. He was forced to retire because he was denounced as a cosmopolitan Jew. He believed that in the current gangster environment (it was the time of the "Doctors' Plot"), mathematics was safer.



#### 1949–1954

I applied for the Faculty of Mechanics and Mathematics at Moscow State University. I was sure that I would successfully pass all the exams. Indeed, I passed the written and oral exams in mathematics with A's. At that time the teachers were honest, but in a year, especially selected examiners began to fill up the entrance exams in mathematics for Jews. I encountered many difficulties, I was asked additional questions in the physics exam, and I could not answer all of them. For example, what are clouds made of? I replied, "from water droplets". The next question was: Why do they not always fall to the ground? I did not know the answer and got C.

The chemistry exam was a different matter. I answered all the questions on the ticket and all additional questions correctly. However, the examiner sometimes said that my answers were not correct, dismissed my objections, and gave me C as well. I was outraged and immediately went to the Central Admissions Office where I reported everything. They told me that the Dean of the Chemistry Department who examined me could not be mistaken. Further, that if I insisted, they would arrange a second exam for me. However, if the



result were confirmed, they would sue me for libel. Frustrated, I went home, where I told Betya and Yasha everything. They forbade me to "stick out," and I was forced to wait for what would happen (later, I learned that it was not the dean who examined me but the deputy dean for the administrative and economic section). In the end, I was admitted even with two C's.

I studied mechanics and mathematics with great pleasure. Excellent mathematicians taught us, like Kolmogorov, Petrovsky, Keldysh, and Khinchin. I was actively engaged in playing basketball along with my studies. There was an unfortunate accident during my basketball practice one time. My suit with all my documents was stolen from the locker room, so I had nothing to wear to class.

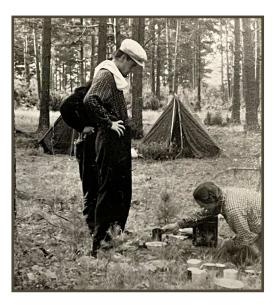
Thanks to my second parents, they immediately bought me a new suit, and the next day, I went back to classes. This story had one positive result. I was an active Komsomol leader, but I got tired of this social work; I wanted to concentrate more on mathematics. At the Komsomol meeting of the faculty, I was nominated for the faculty bureau. I found a way out. I got up and said that I could not be a member of the faculty bureau since I was reprimanded for losing my Komsomol card (it was in my stolen jacket) and luckily, they let me go.

I want to tell you about one of my Komsomol activities, which for me had grave consequences. Our calculus seminars were conducted by Alexey Dionisovich Gorbunov. He was a weak mathematician, and sometimes his whole lesson was spent on calculating a single integral. Therefore, at the Komsomol meeting of the group, I suggested asking lecturer Tumarkin to give us another teacher, preferably Zoya Mikhailovna Kishkina, who was greatly praised by her students. The result was positive, and the next semester, we were given Kishkina. However, we did not know that Gorbunov was high up in the communist hierarchy of the department, and he remembered that.

In my second year, I began to participate in Dynkin's seminar on Markov processes. This topic has become forever the main topic of my work. I read books by Feller and Duba with pleasure and made presentations at Dynkin's seminar on works on this topic. I successfully passed the sessions, and I remember one funny incident. Nina Karlovna Bari delivered lectures on the theory of functions of a real variable. At the end of the course, she said that the notes of her lectures could be used for the exam. I decided that in that case I did not need to prepare for the exam, and I did not. Bari took the exam together with Menshov. I, like the others, took a ticket, sat, prepared, and read the synopsis. About half an hour later, Bari said that it was time to answer Menshov. I was not prepared yet. However, looking around, I saw that the girls from my group were not ready either. Thus, I decided that I would go first, although I had time to prepare only the first question of the ticket. I answered this question and mumbled something on the second question. Menshov began asking me additional questions, which I answered correctly. This went on for quite some time. Then Nina Karlovna came up to Menshov and told him in a theatrical whisper, "Dmitry Evgenievich, this is an excellent student!" To this, Menshov calmly objected: "Nina Karlovna, but I must be convinced of this!' As a result, after examining me for more than an hour, he still gave me an A.

I graduated from the Faculty of Mechanics and Mathematics in 1954, receiving an honorary degree. Moreover, I obtained some new results in the theory of diffusion processes included in my thesis and they were published in the journal called "Presentations of the Academy of Sciences of the USSR".

Dynkin invited me to his PhD Program. The Scientific Council of the Mechanics and Mathematics Department supported this recommendation, but the party committee of the faculty (Gorbunov) rejected it. Therefore, at the After Graduation Work-Placement Committee I was offered a place as an assistant in one of the Moscow universities. I did not immediately agree, and then the chairman of the commission, Slezkin, who was also the Dean, said, "You have to agree. We will not offer you anything else anyway." I forgot to mention that about six months before that, we all filled out a questionnaire, in which there was a question: do you have relatives abroad? I knew that my mother's brother emigrated United States in 1922 and my grandmother the to corresponded with him. Further, as an honest Komsomol member (and in fact, a fool!) I wrote in the questionnaire that my mother's brother had been living in the United States since 1922. Suddenly, shortly before the assignment, Kolmogorov called me (at that time, he oversaw the mathematics department) and asked if my mother's brother had left for the United States with or without permission. I honestly answered that I did not know since it was nine years before my birth. Andrei Nikolaevich was embarrassed and did not ask anything else. Based on Dynkin's suggestion, I realized that he wanted me to get a place in graduate school. There was nothing exceptional in my rejection. Almost all





Camping requires resourcefulness.





Watermelon on the train



Return from camping trip on Belaya River.



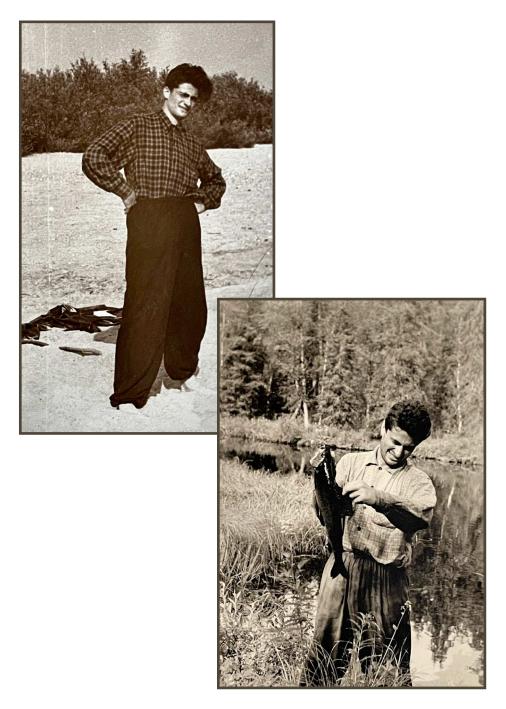
With dear friend Robert Minlos and Sasha Luntz.

students with a Jewish surname were not admitted to graduate school. For example, Robert Minlos was a brilliant student. He was recommended for graduate school by Gelfand but he was assigned as an assistant at the Forestry Institute. However, my case was still unique, I believe, thanks to Gorbunov: when I arrived at my destination, I was told that they did not need an assistant in mathematics (the head of the department of mathematics was the sister of the famous antisemitic academic Vinogradov, director of the Mathematical Institute of the Academy of Sciences of the USSR). Thus, even with my honor diploma, I was left without a job.

#### 1954-1962

For a couple of months, I went to various educational and research institutes searching for work, but they did not get me anywhere. In the end, I managed to get a job as a math teacher in a secondary school. This school was in the Kiev region of Moscow not far from the chemical factory, and most of the students were children of the workers of this plant. They were poor children, and not everyone tried to study well. I was a rather strict teacher; I gave D' to those who did not want to study and not do their homework. One day, the father of a boy came to me and said, "They teach tigers in the circus, but you cannot teach children!' The headmaster was also unhappy and tried to get rid of me. Despite this, I had good relations with most children, and I even organized a Sunday hike with them. We hiked and stopped occasionally to build a campfire and rest around it.

In my free time, I continued to study mathematics, attended seminars and lectures at Moscow State University, wrote a scientific work, and was invited to a conference on the Probability Theory in Leningrad. The conference was in June when school ended, and I just had to be the exam assistant. I talked with the other teacher and he agreed to replace me when I was in Leningrad. However, the director did not allow me to do that, and I decided to look for another job (after all, this was the first scientific conference where I was supposed to give a presentation). Soon, I found an evening school for working youth, not far from home. The director was very happy to sign my resignation form, and at the start of the new academic year, I began to work at the new school. In this school, I worked for the academic year of 1955-56. During this year, the situation in the country



The breadwinner

changed dramatically: the 20th Congress of the CPSU was held with a report by Khrushchev on the personality cult of Stalin. Anti-Semitism began to decline. Gelfand managed to take my friend Minlos to the PhD program at the Department of Mechanics and Mathematics at Moscow State University, and Robert offered me his place at the Forestry Institute.

The Head of the Department, Nikolai Vladimirovich Efimov, was an incredibly good person. He took me, and I happily worked in Lestech for six years, first as an assistant, and then, after getting my Ph.D., as an assistant professor. The atmosphere in the department was wonderful! A few years later, the situation worsened when Efimov became the Dean of the Department of Mechanics and Mathematics of Moscow State University, and thus had to leave Lestech. This was his most challenging job. He died of a stroke at the age of 72, after about 20 years as dean of the Faculty.

In 1954, I married my classmate, Lena Ankudinova, immediately after graduating from Moscow State University. Unfortunately, this marriage was not successful. Lena and I did not have complementary personalities and we often quarreled. One day in 1962 she kicked me out of the house. Despite this, I am incredibly grateful to her for giving birth to our two sons, whom I love very much. After the expulsion, I



Sons. With Sasha and Dima.

stayed on the street and came as a "gift" to my mother, when she lived with Herman's family.

In the spring of 1962, I returned from a seminar at Moscow State University with Mark Pinskei. He suggested that I try to work at the recently created Institute for Information Transmission Problems (IITP) of the USSR Academy of Sciences where he oversaw the laboratory. I decided to try just doing science work as it was more interesting to me than teaching students who were not always diligent. I was offered the position as a senior research fellow at Pinsker's laboratory. The director of the institute was the academic Kharkevich, and his deputy was Ovseevich. They created an excellent environment for scientific work, and I am happy to have worked at the IITP for about 40 years.

During this time, I was doing a lot of mathematics, particularly the theory of stability for stochastic differential equations. As my volunteer work, I created a seminar for students in the mechanics and mathematics department of Moscow University.

#### 1963–1979

In March 1963, my cousin, Rafa Ritman, organized a ski trip to the mountains of Cheget. On the way there I met Lida on the train. I liked her. We began to date, and in June of the same year, we moved in together. We rented a room in a communal apartment. Since then, we have been together, and I found a real family. In 1965, our daughter Anya was born, and we were happy. We entered a housing cooperative, using money given to us by Lida's father (Mark Yakovlevich). My mother moved in with us and took care of our daughter's upbringing. They loved each other very much. However, there were also problems. The fact is that we had little money because a third of the salary went to alimony. Thus, I also had to work as a part-time professor at the Mining Institute, the Medical Institute, and, for the longest time, at the Institute of Communications. At the same time, I published quite a few scientific papers and mentored my first graduate student, Misha Nevelson, who later became a close friend. They began to invite me to scientific conferences abroad, but the Academy of Sciences of the USSR did not permit these trips. However, in 1967, I was unexpectedly offered the chance to



With students, Yury Kutoyants and Boris Levit.

go to Czechoslovakia for three months. I was happy to work with colleagues in Prague, but there was an apparent negative attitude toward the USSR on the part of many residents. For example, one evening, I was getting home from another part of the city, and I needed tram No. 7. Using my broken Czech language, I asked the girl who was next to me: "Where is the stop for tram No. 7?" (I had a Czech-Russian phrasebook with me). She replied in good Russian: "I don't understand a word in Russian."

During this business trip, I wrote a paper "On the principle of averaging the Itô's stochastic differential equations" Although this work was published in 1968 in a not very popular Czech journal "Kibernetica" (I sent it there because I wrote it in Czechoslovakia), it became one of my most-cited articles. This work was highly appreciated by the famous mathematician Papanikolaou, who initiated my invitation to work in the USA.

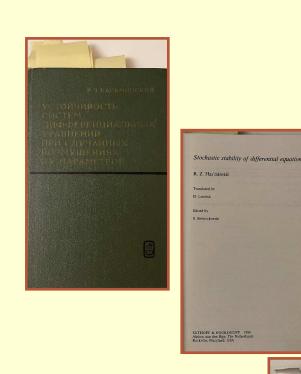
In general, I will describe some of the topics in my scientific research. The first topic was the probabilistic representation of solutions to boundary value problems for linear parabolic and elliptic differential equations. Today, it is a common knowledge, but in 1955, when I published my first paper on this topic, it was quite new. Another topic is the study of stability conditions for the trajectories of Markov processes. I was working on that from 1962 to 1967, and in 1969 I published the "Stochastic Stability of Differential Equations" book on this topic (in 2012, the 2nd edition of this book was published in English). The next topic of my research was stochastic differential equations with a small parameter and related results for parabolic and elliptic differential equations. This includes, in particular, the results of the averaging principle mentioned above. I deeply regret that I did not write a book about these studies, as I got very involved with other tasks. One of these problems is the study of stochastic approximation and recursive estimation for time-continuous Markov processes. Nevelson and I wrote together the "Stochastic Approximation and Recursive Estimation" book on this topic.

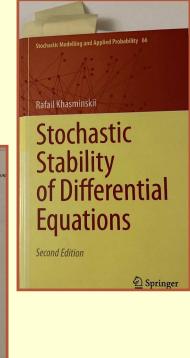
The last topic I want to write about is the problem of statistical estimation. In the late 1960s, I organized a seminar on the issues of statistical analysis at IITP. In this seminar, we studied the work of Le Cam, Gaek, and others. We also studied the concept of local asymptotic normality (LAN).

At a conference on probability theory in Dilijan, I met the mathematician from Leningrad Ildar Ibragimov. I shared my thoughts on how the ideas of LAN can be used to study the properties of statistical estimates. We decided to do this together. The results of these studies were a relatively large cycle of joint works that culminated with the book "Statistical Estimation. Asymptotic Theory", which was published in Russian in 1979 and in English in 1981.

After this short and incomplete list of areas of my scientific work, I return to the memories of life. I was pleased with my position at IITP. I worked with problems that were interesting to me, had postgraduate students, attended seminars at Moscow State University and the mathematical institute. After 1967, I went to conferences in the socialist countries (Czechoslovakia, Hungary, East Germany, Bulgaria). In 1970 I was even a member of the IITP delegation at the Information Theory Conference in Amsterdam! Later, I was also invited to Western countries for conferences, but the foreign department of the Academy of Science did not permit these trips.

A few words about graduate students: as I wrote above, my first graduate student was Nevelson, who worked successfully and wrote a book (in co-authorship with me), but at some point, he became interested in business and left mathematics. In total, I had 10 graduate students in Russia





Stochastic Approximation and Recursive Estimation

> by M. B. Nevel'son R. Z. Has'minskii

Volume Forty-seven Translations of Mathematical Monographs I.A. Ibragimov R.Z. Has'minskii

cations of Mathematics

Statistical Estimation Asymptotic Theory

Springer-Verlag New York Heidelberg Berlin (for comparison, three graduate students in the USA in 20 years of work).

The graduate students were from Moscow and other including Vladivostok. The cities. most talented. undoubtfully, is Yura Golubev. He made a significant contribution to statistics and continues to work successfully at the University of Marseille (France). Some of my graduate students also became famous scientists and worked or continue working in different countries. Boris Levit works at the University in Canada, Sasha Samarov works in the United States. Marat Burnashev worked in Japan for several years, Volodya Kolmanovsky worked in Mexico, Yura Kutoyants works in France.

## 1980-1992

In the late 70s, the situation somewhat softened, and the Academy of Sciences approved my trip to France to give lectures at the Paris Süd University. In the past they had often invited me to participate. However, after the entry of our troops into Afghanistan at the end of the 70s, everything changed; the business trip was cancelled. The situation changed only after Gorbachev's perestroika.

In 1987, I went on a business trip first to Holland and then France. I was well paid in Paris Sud University, but before leaving, I filled out a paper according to which I could keep no more than 10 or 15 dollars a day (I do not remember exactly), and the rest of my salary must be returned to the USSR Academy of Science. I did exactly that to the surprise of an official in the International Department of the Academy of Science. He asked: "Do you want the vice president to send his wife to Paris one more time ?!" But I hoped that my honesty (stupidity!) would help me travel to conferences abroad in the future. It turned out to be unnecessary. The situation had changed dramatically in the country, and there were no longer any obstacles to travel overseas. In 1989, I received an invitation to a conference in Berkeley, USA, dedicated to the 65th birthday of Professor Le Cam. This was my first visit to the USA, and after the conference, I visited several other universities. I was offered six months position as a visiting professor at the Michigan State University in East Lansing. I agreed in the hope that this would greatly help improve the financial situation of our family: all the children had grown up, there were grandchildren, and I wanted to help everyone. Furthermore, my eldest son, Sasha, emigrated to the United States in early 1990, so I wanted to spend some time with him. Lida and I came to East Lansing, where I worked from September to December 1990. The lectures went well, and relations with colleagues were good. Additionally, I received an invitation to make a presentation and later received the offer for a Tenure Track Professor position at Wayne State University in Detroit. I refused the last offer as I did not plan to leave Russia for long periods of time. I also received an invitation to come back to Lansing for a 1991-1992 school year, and I accepted that offer. Before coming back to Moscow, Lida and I decided how to spend our dollars. We decided to buy a VCR with a video camera to sell in Moscow and not have money problems. We did that, and it was helpful!

However, upon our arrival to Moscow, a big surprise awaited us: our daughter Anya announced that she and her husband had applied for emigration to Australia and received permission. So, if I couldn't help them go to the USA (which was, of course, better), they would go to Australia. In reality this meant that we were losing our beloved daughter forever. Of course, I decided that I would try my best. Here, I must



Actively involved at IPPI Conference. With Lida and Anya. make a digression to explain Anya's motives.

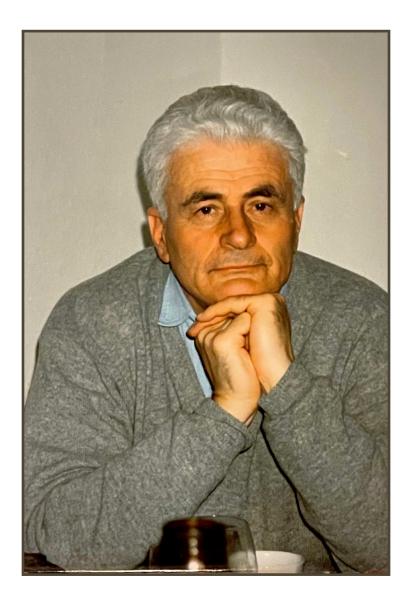
She faced anti-Semitism in the USSR many times. Let me give you two examples. After graduating from high school in 1982, she wanted to apply to Moscow State University, department of Computational Mathematics and Cybernetics (CMC). I dissuaded her because I knew that a person with a Jewish last name could not enter there even though Anya was a good student. However, she insisted on her choice, and with the help of friends, we found a good tutor for her, who worked at the CMC. He liked her progress and worked with her successfully. After a written examination in mathematics, Anya came home satisfied and said that she had answered all the questions. However, her tutor called me and said that Anya had been included in the list of those who would be "receiving all C marks" no matter what they did and would not be accepted at the CMC. He told me that this could only be prevented by the intervention of an influential person at CMC. I tried to get in touch with Prokhorov, the head the Mathematics Department at VMC, but he did not answer my calls. Anya was given a C for her written work, and everything was underlined and crossed out in red ink, which marked mistakes they found and did not explain. After that I convinced Anya that if she received a C in the oral exam, she

would quit this pursuit and would submit her application to the Department of Applied Mathematics at the Moscow Trasport University (MIIT) instead. The entrance exams at MIIT were performed a month later. Thus, it happened, and Anya submitted documents to MIIT.

The second case occurred during the examination at MIIT. In the written exam in mathematics, she was given a C again. Fortunately, our friend Volodya Gaposhkin worked there and went with her to the appeal and proved to the commission that this assessment was unfair. Consequently, Anya entered and successfully graduated from MIIT with master's degree in Computer Science and Applied Math, but it was then, I think, that she decided that she would eventually leave the country.

Lida and I thought about it and decided that I should try to help their family go to the USA (by this time, they already had a daughter, Alissa). However, there was only one way I could help; by paying for Sasha's (Anya's husband) postgraduate studies. To have enough funds for this, I had to work in the USA. Therefore, upon arriving in Lansing in the fall of 1991, I called Wayne State University and said that I had changed my mind, and if they still had a Tenure Track position, I would take the job. They agreed. Thus, the American Odyssey began in my older age. I worked at Wayne State University for over 20 years, and it was a good time for us. I worked, Lida helped me, and we spent time with our children and grandchildren and helped them all.

# From the times of American Odyssey





Great friends and colleagues. Mark Pinsker, Lenja Bassaligo, and Yura Golubev.



With students.



With dear friends and colleagues.



With Joseph Ovseevich.



September 2006



2006, at the 75-th Anniversary Conference.





Travelling with Lida to attend and present at the conferences ...

Two observation models. processes with unknowing function S/1, n-20 process with auteusty poestimate \$P(S) reduced to the Model 2

Model 2 & intervity Stell, and S(t) E (p. 1)  $\begin{array}{l} p=\kappa_{+d}; \quad \kappa \text{ is integer, order.} \\ \exists \quad S^{(\kappa)}(k) \quad \text{ ord} \\ & \left| S^{\kappa'}(t+\kappa) - S^{(\kappa)}(t) \right| \in L \quad \|\lambda\|^{d} \end{array}$ Jallodt=1; Stigilddf=0, for j=1, 2, ..., K "gi have compact support, show gill= 0 for t=0, gill=



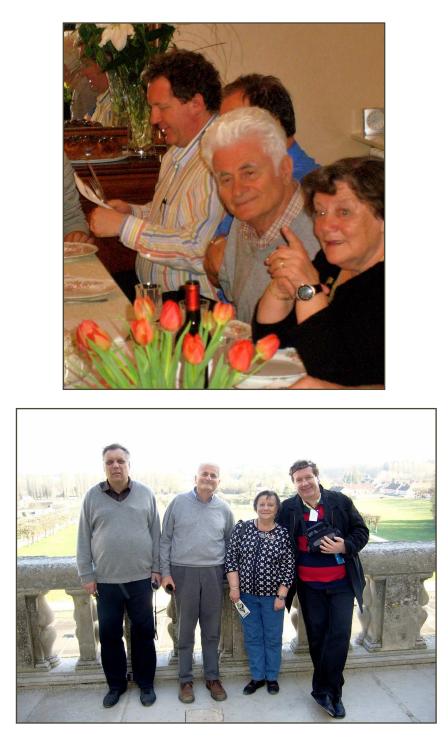


... to spend time with colleagues and friends ...





With Ildar Ibragimov, Yury Kutoyants, and Nakahiro Yoshida.



With Michael Ermakov and Vladimir Zaiats.



... and to see the world.



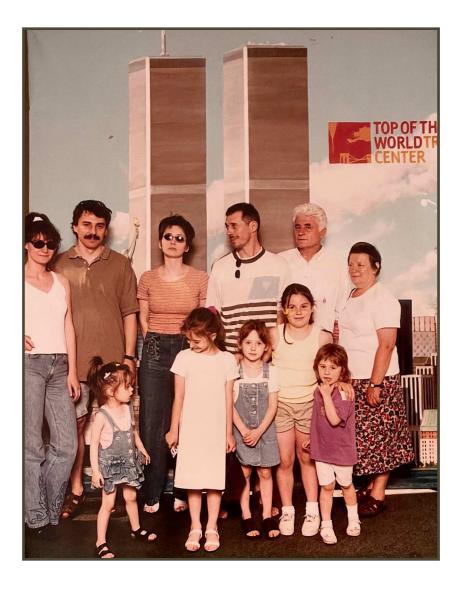
With Marat Burnashev, Ildar Ibragimov, Robert Liptser, Alexander Kushnir, and Yury Kutoyants.



Chillin' with the grandchildren ...



Our extended family in the US.



New York, New York ..



88-th Birthday. With kids.







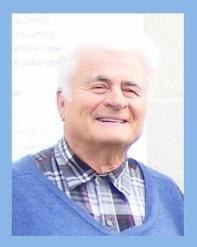
Receiving birthday calls from around the world.





# **Advances in Stochastics & Statistics**

Online conference in honor of **Rafail Z. Khasminskii** 90th anniversary June 10, 2021



### Speakers

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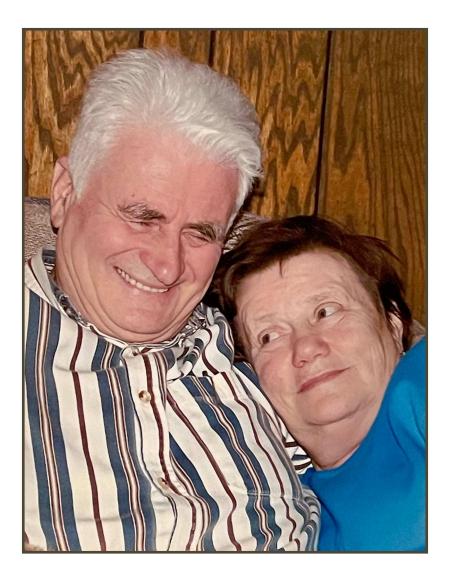
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Rounding up birthday week by attending and presenting at the online conference.



90-th Birthday Party!





With the loved ones.

