

## Opinions by students from Scoala Normala Superioara

My name is Victor Daniel Lie and I was enrolled as a student at SNSB from October, 1st 2003 until July, 1st 2004 for the Master Program - Analysis . The main reason that counted in my decision of joining this Program was the quality of people involved in this project - most of them coming from the Mathematics Institute of the Romanian Academy, experienced researchers, dedicated to Mathematics and who live for it. This resulted in reaching a high level of teaching/ analyzing the subjects treated in those courses, as well as the openness towards nowadays research topics in Mathematics.

Also, it is worth mentioning the participation in this Program of valuable teachers from prestigious universities from abroad. Then, to all the above-mentioned reasons I have to add the considerable financial support for obtaining good grades. Regarding the rewarding system, I consider it to be, by far, the most efficient that I know in the Romanian learning system.

I have to admit that the impact of this Program on my evolution was of great importance: apart from the intrinsic value of the acquired knowledge , based on the results obtained here I obtained letters of recommendation from valuable professors, which gave me the opportunity of obtaining a doctoral fellowship at the University of California in Los Angeles(UCLA).

Currently I am a PhD student in the Analysis Department at UCLA and I work in Harmonic Analysis field, having Professor Christoph Thiele as advisor. This year I will submit for publication the article 'On the Carleson Operator-the Quadratic Case'.

For the future, I plan to finish my thesis in the next two years, and then to apply for a post-doctoral position in one of the North American universities.

In the end, I would like to mention that despite the fact that my plans for the near future consider the North American educational system, I often think that my return in Romania would be more plausible and certainly much easier, under the condition of the development of this beautiful SNSB project, given the increased value of the domestic Mathematical environment.

Without any hesitation, I do consider that(taking into account that the Advanced Studies section at the University of Bucharest does not exist any more) in Mathematics the only two institutions competitive at the international level are the Institute of Mathematics Simion Stoilow(in the research field) and SNSB (in the educational field) .

My name is Marius Petria and I am currently doing a PhD in Informatics at the "Laboratory for Foundations of Computer Science", Edinburgh University, UK.

During the fourth year of my undergraduate study at the "Universitatea Politehnica Bucuresti", I enrolled in the preliminary cycle at the "Scoală Normală Superioară, Bucuresti". I was driven towards this institution by the need to engage in a deeper study in certain fields of informatics and because my expectations in this direction were not fully satisfied by the curricula of my original university.

After the preliminary cycle, the quality of courses and confidence that I was working in a professional academic environment made me to pursue a master in Algebraic Specifications also offered by SNSB and to set my goal to continue my career in this field with a post graduate program at Edinburgh University.

The result of the research done in that year appears in my master thesis and is going to appear also in "Journal of Symbolic Logic". It is worth pointing that this work and the recommendations of the professors from SNSB were an important factor in obtaining a scholarship at Edinburgh University.

To conclude, I would say that the SNSB not only provides an alternative for students who want more from the educational system from Romania but also constitutes an excellent start for a future academic career.

#### Publications :

- (2006) Marius Petria, Razvan Diaconescu - Abstract Beth definability institutionally - accepted for publication in Journal of Symbolic Logic
- (2006) Razvan Diaconescu, Marius Petria - Saturated Models in institutions - work in progress
- (2006) Marius Petria - Godel's completeness theorem in institutions - work in progress

(translated after the original Romanian letter)

Although the simple association with very prestigious educational institutions would draw the attention on "Scoala Normala Superioara - Bucuresti" and obviously a large support for it, I can't notice that SNSB comes with arguments a lot more pertinent than that. One of those is, at least the short term one, SNSB builds up in one solution (the only one actually) to a problem more and more severe in the last years: poor financing of the educative system and the precarious grounding of the high-school graduates at the time they are admitted to Universities, makes it more difficult, at least at Mathematical Faculty to obtain the approval of more advanced lectures for the 2, 5 or 7 students whom are requesting them explicitly (the minimum required is 15) and that despite the fact that Mathematical University takes advantage of teachers with excellent skills and research activity.

In the light of the above facts it is obvious that there is a real danger for the ones interested in research (and not only) to feel themselves more and more isolated, submitted and abandoned to this hungry beast, MEDIOCRITY, which tends to overtake every aspect of Romanian life.

Also, the quest to rally under the SNSB flag a significant quantum of the best prepared students will create a competitive environment on a higher level than the one existing in current Romanian educational institutions. Obviously such a competition can only lead to one result: student with improved scientific training and, why not, a strong feeling of affiliation to the Romanian research community, a community that already displayed a strong vitality as time passed.

In my opinion, choosing the moment when Romania will start taking advantage of the foundation institutions as SNSB depends only on Romanian authority's decision, because the civil society did their part: the SNSB project proves to be a success so far.

Mihai Epure, SNSB student

My name is Dragos Deliu. I am currently a PhD student at the University of Pennsylvania, Philadelphia. I was a student at SNSB during 2002-2004 for the preliminary cycle and then during 2004-2005 for the master's degree.

I decided to apply to SNSB, as I had the chance to take some advanced courses, which I couldn't take at the University of Bucharest. Moreover, SNSB was the place where the best mathematics students in Romania had the opportunity to work together, under the guidance of some top professors. Looking back, I realise that SNSB was extremely helpful to me, as I gained a lot of mathematical knowledge, in some important subjects, such as algebraic geometry, algebraic topology and commutative algebra. Moreover, by getting the chance to work in such a competitive atmosphere, I became more prepared for an academic career in mathematics. SNSB is certainly a great addition to the Romanian academic environment, as it helps students interested in research, to complement their undergraduate studies, and get a deeper understanding of the subjects.

As I said before, now I'm working towards getting a doctoral degree in mathematics. I started the program in September 2005, at the Department of Mathematics. This academic year I had to take some preliminary exams on basic subjects, and then follow some courses. The good mathematical education that I got in Romania, thanks to SNSB, helped me on being successful on all the exams. In fact I attended more advanced courses than most of my colleagues did, thus I was able to get a good and quick start in a new and competitive department. My immediate plan is to prepare for the oral exams, which represents the last step before the effective start of research work.

To sum up, I consider SNSB as one of the best things that happened in the Romanian educational system. It gave me a great mathematical experience, and a good starting point for a academic career. I strongly believe that any student in Romania, that is interested in getting a deeper understanding of mathematics, should attend this institution. I did that and I more than happy to have done it.

I was a NSSB during 2000-2004: I graduated the preparatory cycle in 2003, then the Master program in 2004, so I belong to the first generation of graduate students of NSSB.

I first attended the courses of NSSB as an "experiment", out of curiosity, only to discover what "happens" in mathematics at the highest level.

At least for me it proved to be the right choice. actually it is an excellent opportunity for students with passion for math, since it goes beyond the level of undergraduate courses, "exploring" certain areas of mathematics uncovered by the standard curriculum in universities.

It also offers, for those interested in following an academic carrier, the chance to get in contact with highly trained specialists in various mathematical fields.

After graduating NSSB I applied successfully for a junior researcher position at the Institute of Mathematics of the Romanian Academy, where, at the moment, I work on my PhD.D thesis having as adviser an NSSB professor.

My current research is summarized in a paper (preprint version) concerning the Milnor fiber associated to graphic arrangements. The results contained there have been presented at the summer school "Hyperplane arrangements and constructible sheaves"-Constanta, September 2005.

I have been invited to give a half-hour talk on the same subject at the workshop "Recent Developments in Arrangements and Sonfiguration Spaces", to take place in August 2006 at MSRI, Berkeley.

Now, to get back to the starting point, I guess the main role that NNSB played in the professional evolution of his students was to reveal us that learning is not a purpose, understanding is.

Anca Macinic

I was a student at SNSB for two years, between October 2001 and June 2003.

The main reason I chose to attend SNSB is its aim to expose students to topics in mathematics that are not well covered by the mathematics program at University of Bucharest (in which I was enrolled at the time). Another incentive was that SNSB offered the opportunity of interacting with new people, both professors and students, in small classes. Finally, the financial support provided by SNSB was very beneficial.

In my case, the education I received at SNSB played an important role in finding a field that suits my mathematical taste.

More precisely, the introductory course in operator algebras at SNSB that I took during my second year (2002-2003) provided me with a strong background for what later became my research area.

I have finished my third year of graduate studies in the Department of Mathematics at the University of California, Los Angeles and I am expecting to graduate in June 2007. In the meantime, I intend to apply for a postdoctoral position in an university in the USA or Europe.

As part of my thesis, I have written two papers by myself and one in collaboration with J. Peterson and S. Popa:

"A relative version of Connes'  $\chi(M)$  invariant and existence of orbit inequivalent actions (accepted to Journal of Ergodic Theory and Dynamical Systems)

and "Rigidity results for wreath product  $\mathbb{Z}_2$  factors",

"Amalgamated free products of w-rigid factors and calculation of their symmetry groups".

Also, I have given several invited talks in conferences and seminars: AMS meeting, Vanderbilt University, October 2004,

Séminaire Algèbres d'Opérateurs, Institut de Mathématiques de Jussieu, Paris, December 2004,

Third Annual Spring Institute on NCGOA, Vanderbilt University, May 2005,

6th Operator Algebras International Conference, Bucharest, Romania, August 2005.

Adrian Ioana

I believe that it was SNSB that put me into the place I am today. I had a solid college education but it was lacking more advanced courses. What I found by attending classes at SNSB was an advanced treatment on topics of math that I had never encountered before. But the most wonderful feeling around SNSB was that of long-lasting friendship among students.

I have just finished my first year as a PhD student at UIUC. I have not been assigned a topic for my thesis yet, but I have a great advisor and I am currently working on a summer research project on generalizing a combinatorial construction of cohomology to (not necessarily abelian) cosimplicial groups.

Alexandra Seceleanu

I was a student at SNSB, the Informatics Section, during October 2003 and August 2004. The courses that I was taught here - specifically, courses in algebraic specifications, model theory and the semantics of programming languages - influenced enormously both my future career and my overall view of logic and computer science.

I am currently following a Ph.D. program in Computer Science at the University of Illinois at Urbana, where my research is heavily based on what I have learned at SNSB. Right now, I am working on higher-order calculi and programming language semantics, trying to provide a uniform specification framework, with built-in complete models - many of the logic-independent ideas that I am currently developing have their roots in the SNSB period, especially in a course taught by Razvan Diaconescu on institutional model theory.

I think that the "Ecole Normale Superieure" initiative in Romania provides a good opportunity for elite professors and students to interact in an appropriate scientific and intellectual environment.

Andrei Popescu