

Extrait du <BR/>UREM :<BR/>Unité de Recherche sur l'Enseignement des Mathématiques

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# Vladimir Arnold 1937-2010

- Extra-muros -



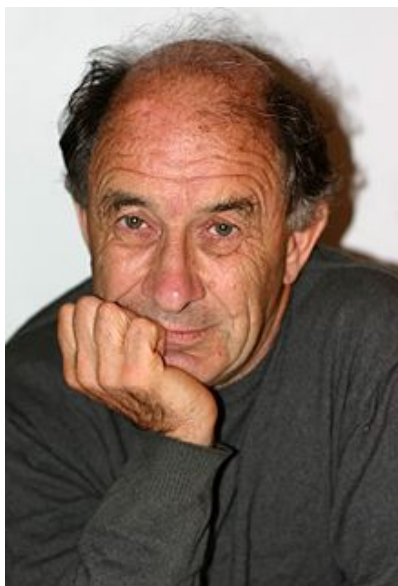
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Hommage à **Vladimir Arnold** (1937-2010) dans les [Notices](#)



[Tribute to Vladimir Arnold by Boris Khesin and Serge Tabachnikov, Coordinating Editors](#)

Quelques extraits

*Q : How did you become a mathematician ? What was the role played by your family, school, mathematical circles, Olympiads ? Please tell us about your teachers.*

A : I always hated learning by rote. For that reason, my elementary school teacher told my parents that a moron, like myself, would never manage to master the multiplication table. My first mathematical revelation was when I met my first real teacher of mathematics, Ivan Vassilievich Morozkin. I remember the problem about two old ladies who started simultaneously Vladimir Igorevich Arnold from two towns toward each other, met at noon, and who reached the opposite towns at 4 p.m. and 9 p.m., respectively. The question was when they started their trip. We didn't have algebra yet. I invented an "arithmetic" solution (based on a scaling or similarity argument) and experienced a joy of discovery ; the desire to experience this joy again was what made me a mathematician.

*Q : You spend much time popularizing mathematics. What is your opinion about popularization ? Please name merits and demerits of this hard genre.*

A : One of the very first popularizers, M. Faraday, arrived at the conclusion that "Lectures which really teach will never be popular ; lectures which are popular will never teach." This Faraday effect is easy to explain : according to N. Bohr, clearness and truth are in a quantum complementarity relation.

*Q : Many readers of Kvant aspire to become mathematicians. Are there "indications" and "contraindications" to becoming a mathematician, or can anyone interested in the subject become one ? Is it necessary for a mathematician-to-be to successfully participate in mathematical Olympiads ?*

A : When 90-year-old Hadamard was telling A. N. Kolmogorov about his participation in Concours Général (roughly corresponding to our Olympiads), he was still very excited : Hadamard won only the second prize, while the student who had won the first prize also became a mathematician, but a much weaker one ! Some Olympiad winners later achieve nothing, and many outstanding mathematicians had no success in Olympiads at all. Mathematicians differ dramatically by their time scale : some are very good tackling 15-minute problems, some are good with the problems

that require an hour, a day, a week, the problems that take a month, a year, decades of thinking. A. N. Kolmogorov considered his "ceiling" to be two weeks of concentrated thinking. Success in an Olympiad largely depends on one's sprinter qualities, whereas serious mathematical research requires long distance endurance (B. N. Delaunay used to say, "A good theorem takes not 5 hours, as in an Olympiad, but 5,000 hours"). There are contraindications to becoming a research mathematician. The main one is lack of love of mathematics.

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Commentaire d'Hugues Vermeiren

Une controverse en pleine guerre froide : Arnold, Pontriagine et Margulis (Fields 78) :

<http://mathoverflow.net/questions/27144/why-didnt-vladimir-arnold-get-the-fields-medal-in-1974>

Pontriagine, aveugle à 14 ans, a écrit une autobiographie, disponible en Russe et en ligne :

<http://www.ega-math.narod.ru/LSP/book.htm>