Remembering Victor

An Armenian Mathematician:

Victor Arzumanian
(1949-2019)
Two or three thing I know of him

• Childhood in Baku.
• PhD at Leningrad State University under the direction of Anatoly Vershik, entitled “Structure and Representations of Involutive Algebras associated with Semigroups of Endomorphisms” defended in 1979.
• Researcher at the Institute of Mathematics of the National Academy of Sciences of Armenia since 1980.
His research interests

Mathematical Physics

- Operator algebras and dynamical systems

Functional Analysis

- Uniform algebras
- Statistical mechanics and probability theory
ALGOP, Orléans July 1992
Irreversible dynamical systems

Victor is one of the first researchers who associated involutive operator algebras to irreversible dynamical systems such as semigroups of endomorphisms:


and to inverse semigroups:

Victor in Orléans

Since his work had very close connections with mine, I wanted to discuss further with him. I am grateful to the University of Orléans for offering him a one-month visiting professor position, which he held in June 1996.
June 1996
Bourges, June 1996
Our joint paper

Many constructions Victor and I had considered could be put in the same bag: pseudogroups and groupoids of germs. We gave a particular attention to polymorphisms, which Vershik had introduced in the measure theoretical setting:

polymorphisms

Example: $\Sigma = X = S^1$, $r(z) = z^2$, $s(z) = z^3$

Furstenberg's $x2 \times x3$ conjecture: any invariant, ergodic, Borel probability measure is either atomic or the Lebesgue measure.
The math-phy conferences

Since 1982, Victor and his colleagues Boris Nahapetian and Suren Poghosyan organize one of the most important conferences in mathematical physics. Among the participants were many well-known scientists, such as S. Albeverio, R. Dobrushin, G. Dell’Antonio, V. Malyshev, R. Minlos, S. Miracle-Sole, A. Polyakov, Y. Sinai, A. Vershik and others.
Tsaghtkadzor 2002
Yerevan 2002
Yerevan 2016
Armenia 2016