Special issue on the occasion of the 60th birthdays of Étienne Ghys, Tadeusz Januszkiewicz, and Efim Zelmanov

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Étienne Ghys

On the third day of the 2006 International Congress of Mathematicians in Madrid, mathematicians from all around the world were mesmerized by Étienne Ghys as he was delivering his plenary lecture. The extraordinary pedagogical talent of Étienne was backed by a feast of animation prepared in collaboration with digital engineer Jos Leys, the like of which had never been seen before in the Congress. In awe at the prospect of being compared to this performance, one of the forthcoming plenary lecturers commented "Now the only option I have is pack and leave at once." But those who had known Étienne for a long time were not surprised. They were aware that, besides being a deep mathematician with extremely broad interests, he is also a peerless lecturer!

A long-time researcher at CNRS, Étienne has held positions in Lille, New York, Rio and Lyon. He worked for more than three decades in the theory of dynamical systems in a broad sense, with striking contributions in topology and Riemannian geometry. He constructed new dynamical invariants, established a number of rigidity results, and studied group actions, foliations, and laminations. One of the recurring themes in his work is the relation between the topology of a space and the structure of the dynamical systems which can be defined on this space.

But it would be a mistake to reduce Étienne's activity to this field, rich as it is. With his extraordinary curiosity, charisma, and energy, he is an inspiring institution builder. He tirelessly worked to make the geometry team of École Normale Supérieure de Lyon one of the best anywhere. He has had over forty collaborators and twenty students, coming from developed as well as emerging countries around the world. He also served as the chief editor of the Publications of IHÉS for more than ten years, as well as on a number of prestigious boards. And even more importantly, for decades he has been generously spending his time and insights in energetic discussions with colleagues of all mathematical specialties. Many of us have experienced those illuminations arising from conversations with Étienne. No wonder then that his influence has been shining across continents, subjects, and generations.

Étienne has also been a world leader in initiatives for the communication of science, both within the circle of mathematicians and across the broader community. Besides his many public contributions, he founded the experimental journal *Images des Mathématiques* with the radical principle that "all papers should be written by mathematicians for non-mathematicians." He pushed this project with tenacity, gathering energies and collaborators around him, with a common vision that science should be shared with society at large.

A unique combination of talents, definitely! All this contributes to give Étienne a special and most respected place among mathematicians.

Tadeusz Januszkiewicz

Tadeusz Januszkiewicz turned 60 on September 20, 2015. Earlier that summer the Conference on Geometric Group Theory took place at the University of Wrocław, bringing together many of his friends and colleagues. On July 2, conference participants gathered in the garden of a quiet villa in Wrocław housing the local branch of the Institute of Mathematics of the Polish Academy of Sciences and celebrated his birthday together with him.

Tadeusz was born in Wrocław, a city most of his scientific career has been intertwined with. In 1978 he was awarded a Magister degree and became an Assistant at the Mathematical Institute of the University of Wrocław. He spent the academic year 1981–82 as an exchange scholar at SUNY Stony Brook, studying under Anthony Phillips. The outcome of this stay was his doctoral dissertation, defended at the University of Wrocław in 1984. Tadeusz concluded his habilitation thesis in 1993, and in 2003 he was conferred the title of Professor by the President of Poland.

In 2003 Tadeusz moved to Ohio State University. Upon his return to Poland in 2010, he took up the position of Deputy Director for Research at the Institute of Mathematics of the Polish Academy of Sciences in Warsaw. Nonetheless, he still maintains close ties with the University of Wrocław.

Author of several celebrated results in topology, geometry, and geometric group theory, Tadeusz boasts an impressive mathematical career. His output includes classical pieces such as his early work with long-standing collaborator Mike W. Davis on toric manifolds and hyperbolization, his results with Jan Dymara on the cohomology of automorphism groups of buildings, and his more recent work with Jacek Świątkowski on simplicial non-positive curvature. Awarded many distinctions for his research, he has received, among others, the prizes of the Ministry of Higher Education in 2003 and 2008 and the Banach Prize of the Polish Mathematical Society in 2012. In 2010 he was invited to speak at the International Congress of Mathematicians in Hyderabad, India.

One of Tadeusz's most remarkable achievements is his legacy as a mentor and educator. His charisma and strong leadership have enabled him to gather together at the University of Wrocław a remarkable group of people who, inspired by his passion for mathematics, have formed a nucleus for geometric group theory that has popularized this fascinating area of mathematics in Poland.

Image: KIAS

Efim Zelmanov

Efim Isaakovich Zelmanov was born in Khabarovsk (in the former Soviet Union, presently in the Russian Federation) on September 7, 1955. He is known worldwide for his solution to the restricted Burnside problem, which asks whether up to isomorphism there are only finitely many finite groups with m generators and exponent n. For this achievement he was awarded the Fields Medal at the ICM in Zürich in 1994. Efim's impressive and influential mathematical work also includes remarkable results in nonassociative algebra, in particular on infinite-dimensional Jordan algebras and on Lie algebras, as well as other profound contributions to group theory such as his investigations into pro-p-groups and his solution to the Platonov problem.

Efim entered Novosibirsk State University in 1972 and obtained an M.S. in Mathematics in 1977 and a Ph.D. in Mathematics in 1980. He held a position in Novosibirsk until 1987, when he left the Soviet Union. In 1990 he moved to the United States, becoming a professor at the University of Wisconsin–Madison (1990–1994) and then at the University of Chicago (1994–1995) and Yale University (1995–2002). Finally, in 2002 he was appointed the Rita L. Atkinson Chair in Mathematics at the University of California San Diego. He is also a Distinguished Professor at the Korea Institute for Advanced Study.

Efim was elected a member of the U.S. National Academy of Sciences in 2001. He is also an elected member of the American Academy of Arts and Sciences (1996) and a foreign member of both the Korean Academy of Science and the Royal Academy of Spain. In 2012 he became a fellow of the American Mathematical Society. He has given invited talks at the ICM in Warsaw (1983), Kyoto (1990), and Zürich (1994).

Efim Zelmanov's contributions to mathematics go far beyond his profound and remarkable research. He is a charming speaker and lecturer: his refined sense of humour makes his presentations and communication an authentic pleasure for the audience; he is a great organizer and active member of the scientific community (serving as a member of several important committees, including those for the assignment of the Fields Medal and the Abel prize); he is (or has been) an editor of the most important mathematical journals, including the Annals of Mathematics, the Journal of the AMS, the Journal of Algebra, the Bulletin of Mathematical Sciences, and Groups, Geometry, and Dynamics, to quote but a few.

Last but not least, Efim is a wonderful and caring person, a truly great friend, always ready to help and support colleagues and researchers from all over the world.