An encounter with Petr Vopěnka

Kateřina Trlifajová

katerina.trlifajova@fit.cvut.cz

Tribute to Kurt Gődel Brno, January 13 - 15, 2020



- Born on 16th May 1935 in Prague.
- Childhood in Dolní Kralovice.
- Baccalaureate in Ledeč nad Sázavou in 1953.

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- Born on 16th May 1935 in Prague.
- Childhood in Dolní Kralovice.
- Baccalaureate in Ledeč nad Sázavou in 1953.
- Faculty of Math. and Physics, Charles University 1953 1958.

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- Associate Professor 1964.
- Doctor of Sciences 1967.
- Professorship was prepared in 1968.
- ▶ Vice-Dean 1966 1969.

- Born on 16th May 1935 in Prague.
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- Faculty of Math. and Physics, Charles University 1953 1958.

- Associate Professor 1964.
- Doctor of Sciences 1967.
- Professorship was prepared in 1968.
- Vice-Dean 1966 1969.
- Russian occupation of Czechoslovakia in 1968.
- Employee in a subsidiary position, 1970 1989.

Dolní Kralovice



- ► Velvet revolution, 1989.
- Professor 1990.
- ▶ Vice-Rector of Charles University in 1990.

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Minister of Education 1990 - 1992.

- ► Velvet revolution, 1989.
- Professor 1990.
- Vice-Rector of Charles University in 1990.
- Minister of Education 1990 1992.
- Professor Emeritus in 2000.
- JEP University in Ústí nad Labem.
- West Bohemian University in Pilsen. 2001 2015.

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- Medal of Merit from Vaclav Havel in 1998.
- ▶ The Vision 97 Award in 2004.

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- Medal of Merit from Vaclav Havel in 1998.
- ▶ The Vision 97 Award in 2004.
- Died on 29th March 2015. The day of a solar eclipse.

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Last student of Eduard Čech. Topology. Dimension theory.

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- Mathematical logic.
- Set-theoretical seminar (B. Balcar, L. Bukovský, P. Hájek, K. Hrbáček, T. Jech, A. Sochor, P. Štěpánek, and others).
- Non-standard interpretations. Inaccessible cardinals. Forcing.

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Vopěnka's principle.

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- Gitman, V., Hamkins. J.D., A model of the generic Vopěnka principle in which the ordinals are not Mahlo. Arch. Math. Log. 58(1-2): 245-265, 2019.

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- Vopěnka's principle.
- Gitman, V., Hamkins. J.D., A model of the generic Vopěnka principle in which the ordinals are not Mahlo. Arch. Math. Log. 58(1-2): 245-265, 2019.
- Theoretical cybernetics. (M. Chytil, R. Kryl, P. Pudlák, P. Vojtáš...)

Vopěnka's set-theoretical seminar in 1998



B. Balcar, P. Štěpánek, P. Hájek, P. Vopěnka, A. Sochor, L. Bukovský

D. Harmancová, P. Jechová, K. Bendová, A. Sochorová, T. Jech

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 Petr Hájek, Petr Vopěnka, *Theory of Semisets*, North-Holland Publishing Company, 1972.

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Alternative Set Theory. (K. Čuda, J. Mlček, A. Sochor, A. Vencovská, P. Zlatoš, and others)

- Petr Hájek, Petr Vopěnka, *Theory of Semisets*, North-Holland Publishing Company, 1972.
- Alternative Set Theory. (K. Čuda, J. Mlček, A. Sochor, A. Vencovská, P. Zlatoš, and others)
- Mathematics in the Alternative Set Theory, Teubner, Leipzig, 1979.

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 Úvod do matematiky v alternativnej teórii množin Alfa, Bratislava 1989.

- Petr Hájek, Petr Vopěnka, Theory of Semisets, North-Holland Publishing Company, 1972.
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- Pilsen seminar (M. Holeček, M. Větrovcová, J. Romportl)
- Prolegomena, Karolinum, Praha 2014.
- New Infinitary Mathematics I. IV., Karolinum, Praha 2016.

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► Geometry.

Four Discourses with Geometry, 1989 - 1995.

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Geometry.

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Relation of the surface and the volume of a sphere (Archimedes).

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Infinity.

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The set of all truth in themselves. (Bernard Bolzano).

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The set of all truth in themselves. (Bernard Bolzano).

Narrative on the Beauty of Neo-Baroque Mathematics, 2004.

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Calculus infinitesimalis, 1996, 2011, Práh.

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Calculus infinitesimalis, 1996, 2011, Práh.

Modern mathematics.
Proof of God's existence. (Kurt Gődel)

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Paolo Mancosu, Mesauring the Sizes of Infinite Collections of Numbers: Was Cantor's Theory of Infinite Sets Inevitable?, 2009.

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- Paolo Mancosu, Mesauring the Sizes of Infinite Collections of Numbers: Was Cantor's Theory of Infinite Sets Inevitable?, 2009.
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- Vieri Benci, Mauro Di Nasso, Numerosities of Labelled Sets: a New Way of Counting, 2003.
 How to Measure the Infinite. Mathematics with Infinite and Infinitesimal Number, World Scientific, 2019.

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 How to Measure the Infinite. Mathematics with Infinite and Infinitesimal Number, World Scientific, 2019.
- Yaroslav Sergeyev, Numerical infinities and infinitesimals: methodology, applications, and repercussions on two Hilbert problems., 2017.

Phenomenology. Jan Patočka.

Phenomenology. Jan Patočka. Return to phenomena themselves.

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"... to reach more deeply and pull new concepts out of the maze of natural world phenomena."

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- Indiscernibility relation, monads, continuum.

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Meditations on Foundations of Science, Práh, 2001.

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Phenomenological interpretation of infinity and continuum.

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Meditations on Foundations of Science



"The second more meaningful phenomenon immediately after the horizon, which modern science has denied a place in the subject of its study, is the phenomenon of indiscernibility. We show that through this phenomenon we interpret the phenomenon of continuity and that the cohesiveness of the world is actually based on this phenomenon, interpreted as a collection of objects."

Philosophical Seminar

Summer Philosophical School in Sázava 2001 - 2011 (P. and K.Floss, Z.Neubauer, I.M.Havel, J.Fiala, M.Větrovcová, M.Holeček, P. Zamarovský)

