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TO THE MEMORY OF DR. ROBERT WAGNER

Karl-Heinz Indlekofer (Paderborn, Germany)

Robert Wagner

26 September 1943 – 19 March 2023

On March 19, 2023, Robert Wagner died in Aachen at the age of 79, leaving his wife Ursula and daughters Daniela and Sonja together with two grandchildren Benjamin and Marlene. He was a friendly and altruistic person, a very likeable colleague and an excellent mathematician.

Robert Wagner was born on September 26, 1943, in Birkenfeld, a small town in the Hunsrück mountains. He obtained the Abitur from the Gymnasium in Bad Honnef in 1963. Then he started his higher education studies at the University of Bonn in mathematics and graduated with honours from the Goethe-University Frankfurt in 1970, where he was a student of Gottfried Köthe, who is famous for his pioneering research on linear topological vector spaces. Only one year later, 1971, he obtained his doctorate with the dissertation *Singularitätskriterien für lineare Abbildungen zwischen lokalkonvexen Räumen.*

Robert Wagner first worked as an assistant at the Technical University of Berlin (1971) for two years and then moved to Paderborn University in 1973. Five years later he has been appointed as Akademischer Oberrat. Since the end of the 1980s, he was a member oft he Research Group Number Theory and was engaged in analytic and probabilistic number theory.

Since 1990 he was involved in several TEMPUS and research–projects of the *Deutsche Forschungsgemeinschaft. Here the Trans–European Mobility Programme for Univerity Studies* was very successful in promoting cooperation-projects for the modernisation of higher education between countries in eastern Europe and countries in EU. In the frame of TEMPUS I, II (1990-2001) several projects were established between the University of Paderborn and hungarian universities. A large number of staff members and students from Hungary visited Paderborn. As a participant of the DFG-projects he was invited to conferences in Palanga (Lithuania), Budapest, Kiev and Koktebel (Krim).

Karl-Heinz Indlekofer and Robert Wagner

Robert Wagner's research acitivities included at the beginning topological vector spaces and later the distribution of values of arithmetical functions. Notable in this context is his result in [10], where he showed that if F is an algebra of real-valued bounded functions on $\mathbb{N}$ such that

(I) F separates the points,

(II) F contains the constants,

(III) F is complete in the sup-norm

and each $f \in F$ posseses a mean-value $M(f)$ then $M(f)$ is equal to an integral of f^* on $\beta\mathbb{N}$, where $\beta\mathbb{N}$ is the Stone–Čech compactification of $\mathbb{N}$ and f^* is the extension of f to $\beta\mathbb{N}$. In [11] it is shown that such a representation is valid for any positive linear functional on F.

The following list of publications reflects the breadth of his mathematical interests:

[1] Topologisch lineare induktive Limiten mit abzählbarem kompakten Spektrum, *J. Reine Angewandte Mathematik*, **261** (1973), 209–215.

[2] Räume mit einer absorbierenden Folge kompakter Mengen, *J. Reine Angewandte Mathematik*, **278/279** (1975), 398–407. (with B. Ernst)

[3] Eine Bemerkung zur Division von Distributionen durch analytische Operatorfunktionen, *Manuscripta Math.*, **21** (1977), 25–42. (with B. Gramsch)

[4] Über beschränkte Mengen in induktiven Limiten topologischer Vektorräume, *Manuscripta Math.*, **19** (1976), 365–374. (with W. Ruess)

[5] Über die Verteilung der B-Elemente in einem Polynomring über einem endlichen Körper, *Annales Univ. Sci. Budapest., Sect. Comp.*, **14** (1994), 241–248.

[6] Ein Eindeutigkeitsproblem für additive Funktionen mit Grenzverteilung, *Annales Univ. Sci. Budapest., Sect. Comp.*, **22** (2003), 365–371.

[7] Mean behaviour of uniformly summable q-multiplicative functions, *Annales Univ. Sci. Budapest., Sect. Comp.*, **25** (2005), 171–194. (with K.-H. Indlekofer and Y.-W. Lee)

[8] On some compactifications of $\mathbb{N}$, in: *Analytic and probabilistic methods in number theory, Proceedings of the 4th International Conference in honour of J. Kubilius held in Palanga*, September 25–29, 2006, Vilnius (2007), 6–16. (with A. Barát and K.-H. Indlekofer)

[9] On statistical convergence and statistical monotonicity, *Annales Univ. Sci. Budapest., Sect. Comp.*, **39** (2013), 257–270. (with E. Kaya and M. Kucukaslan)

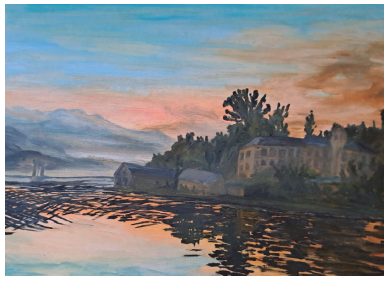
[10] Über den Zusammenhang zwischen Funtionenalgebren von zahlentheoretischen Funktionen und Mengenalgebren, *Annales Univ. Sci. Budapest., Sect. Comp.*, **39** (2013), 449–458.

[11] About positive linear functionals on spaces of arithmetical functions, *Annales Univ. Sci. Budapest., Sect. Comp.*, **40** (2013), 295–306. (with K.-H. Indlekofer)

[12] On some results of Indlekofer for multiplicative functions, *Annales Univ. Sci. Budapest., Sect. Comp.*, **48** (2018), 17–29. (with E. Kaya)

[13] Orthonormal systems in spaces of number theoretical functions, *Lithuanian Math. J.*, **61** (2021), 373–381. (with K.-H. Indlekofer and E. Kaya)

Although mathematics took most of his time, he kept up a multitude of activities, such as travelling and exploring foreign countries by car (we mention, for example, his trips in the 1970th to Afghanistan and Persia) and his affectian for painting. Some examples of his work are shown by the photos.



Robert Wagner was a very good friend. His colleagues and students will keep his memory alive.