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Preface

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Preface

This issue of *Complex Variables and Elliptic Equations* is dedicated to Professor A. Okay Çelebi on the occasion of his 70th birthday.

Professor Çelebi, a well-known mathematician in Turkey and abroad, was born in a small city in Turkey, Tokat, on 10 March 1943. He received his PhD degree in mathematics from Ankara University in 1967 with a dissertation entitled ‘On the Generalized Tricomi’s Equation’, completed under the supervision of Prof. Saffet Süray. Later, he started working at Ankara University, continuing for several years, and he served as chairman of the Applied Mathematics Chair and also chairman of the Department of Mathematics in different periods. Professor Çelebi visited the California Institute of Technology for a post-doctorate study in 1968 and later in 1975 he worked as a visiting associate at Leicester University for a semester. In 1983, Professor Çelebi joined the Department of Mathematics of the Middle East Technical University in Ankara, and served for two terms as a chairman in the same department. Professor Çelebi has been working at the Department of Mathematics of Yeditepe University in Istanbul since 2007.

Professor Çelebi’s fields of interest encompass a broad range of topics including linear elliptic partial differential equations with singular coefficients, non-linear ordinary and partial differential equations; initial and boundary value problems for complex partial differential equations in the spaces of generalized analytic functions and monogenic functions. He has pioneered the study on the subject of generalized analytic functions in Turkey, and supervised several theses on pseudo-holomorphic functions and initial and boundary value problems for complex partial differential equations. Recently, Prof. Çelebi has studied some classes of singular integral operators as well as the Schwarz boundary value problem for higher-order equations with one of his PhD students. The above-mentioned works have led to the development of other related problems, such as Neumann, Dirichlet, Robin and mixed boundary value problems. Currently, Prof. Çelebi is interested in boundary value problems for complex partial differential equations in multiply-connected and unbounded domains and also in the attractors, stability and the long-time behaviour of partial differential equations in real variables.

Prof. Çelebi is the author of several papers in applied mathematics, editor and co-editor of many national and international proceedings, co-author of three books and member of the editorial boards of the journals *Complex Variables and Elliptic Equations*, the *Bulletin of the Marathwada Mathematical Society*, the *Advances in*

Dynamical Systems and Applications, the *Turkish Journal of Mathematics* and the *Anadolu University Journal of Science and Technology*. Throughout his career, Prof. Çelebi has been a member of the University Senate and the executive boards at Firat University, Yeditepe University and the Middle East Technical University in different periods.

Prof. Çelebi is an active contributor to many science-related establishments. These include the International Society for Analysis, its Applications and Computation (ISAAC), where he has been a board member since 2005; and member of the Turkish Mathematical Society as the President of the Ankara Branch; the Society for Industrial and Applied Mathematics, the Turkish National Committee on Theoretical and Applied Mechanics, the American Mathematical Society and the International Society of Difference Equations. Moreover, he has served as a distinguished member for Turkey in the General Assembly of UNESCO.

Prof. Çelebi has been known to be the driving force behind the development of applied mathematics in Turkey. During his academic career, he has initiated and hosted several important national and international workshops, conferences and symposia in his native country. Among such events has been the highly attended 6th ISAAC Congress, in collaboration with Heinrich Begehr and P. Robert Gilbert at the Middle East Technical University, Ankara in 2007. Prior to this organization, he has co-organized the ISAAC-supported workshop series entitled ‘The Recent Trends in Applied Complex Analysis’ held in 1998 and in 2004, bringing together many well-known specialists in the field among whom were Heinrich Begehr, Robert P. Gilbert, Wolfgang Tutschke, Vladimir Mityushev, Sergei Rogosin, Elena Obolashvili, Massimo Lanza de Cristoforis, Abdulhamid Dzhuraev, and many others. The events supported or organized by Professor Çelebi in Turkey, to mention a few, include the series of ‘Differential Equations Symposia’ which were held annually between 1985 and 1997. This series was significant, in that, it was the first attempt to bring together academics, specializing in the field at a national level. Later, these gatherings were expanded in order to gain more international respect. Another is the series entitled ‘Workshop on Non-linear Problems in Mathematical Physics’ to which many international well-known scientists, among them, Jack K. Hale, Olga A. Ladyzhenskaya, James York and Howard Levine were invited. In these workshops, priority and special attention was given to young researchers and learners in Turkey. In addition to these, in 2010 he initiated the new series called ‘Workshops on Graduate Mathematics’, to be reconvened biannually. Being first in Turkey, these workshops have been aimed at bringing new-graduates face to face with specialists and academics in the field to discuss common and current issues. Another important series is the WDEA (Workshop on Differential Equations and Applications), which has been held for the last 10 years. As an organizer and participant in the seminar series entitled the ‘Dynamical Systems Seminars’, which was previously called the ‘Ankara Differential Equations Seminars’, Prof. Çelebi is a frequent visitor to Ankara. He has conducted a series of graduate summer schools supported by TUBITAK (The Scientific and Technological Research Council of Turkey), with the aim of attracting young learners to different fields in mathematics. Also, he was a team leader representing Turkey in the annual International Mathematical Olympiads between 1985 and 1993. In 1993, during the 34th International Mathematical Olympiad held in Istanbul, he served in the capacity of Executive

Secretary. He has given talks on many occasions at different universities and international conferences in several countries. He visited Kazakhstan for the purpose of lecturing as well.

Prof. Okay Çelebi successfully combines his research work with his teaching activity. He has taught numerous PhD courses in the areas of his scientific interest mentioned above, while supervising a large number of master students and 18 PhD students, 16 of whom are currently at different universities, both in Turkey and abroad, as academics themselves. His sense of encouragement has been found valuable by his students and colleagues. Meeting with his students, for instance, every week without any exception, he has proved himself to be within reach and available whenever needed.

Countries and cultures around the world have all, in some form, venerated continuous learning ‘from cradle to the grave’, which is certainly true for Prof. A. Okay Çelebi. The list of activities, duties and involvements of Prof. Çelebi is impressive enough to regard him as a dedicated scientist and researcher in the field of mathematics. On behalf of the former and current members of his departments, his colleagues and friends, we wish him the best of health and happiness, and a successful continuation of his endeavours in the future. We shall also express our gratitude to those who have contributed to this special issue. We would like to extend our deepest thanks to the Editorial Board of *Complex Variables and Elliptic Equations* for dedicating this issue to celebrate Prof. A. Okay Çelebi’s accomplishments.

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Curriculum Vitae of A. Okay Çelebi**(1) Personal Data**

- Date of birth: 10 March 1943.
- Birthplace: Tokat, Turkey.

(2) Education

- PhD, Ankara University, Turkey, 1967.
- Bsc, Ankara University, Turkey, 1964.

(3) Experience

- Professor, Department of Mathematics, Yeditepe University, Istanbul, Turkey, 2007-present.
- Professor, Department of Mathematics, Middle East Technical University (METU), Ankara, Turkey, 1983–2006.
- Professor, Department of Mathematics, Ankara University, Ankara, Turkey, 1979–1988.
- Associate Professor, Department of Mathematics, Ankara University, Ankara, Turkey, 1973–1979.
- Visiting Associate, Leicester University, Great Britain, 1975–1976.
- Research Fellow, California Institute of Technology, USA, 1968–1969.

(4) PhD students

- | | |
|--|-------------------|
| (1) Nuri Ersoy | 1978, Ankara Univ |
| (2) Mehmet Çağhyan (Uludağ University) | 1978, Ankara Univ |
| (3) Necati Muhafız | 1981, Ankara Univ |
| (4) Ethem Anar (Gazi University) | 1982, Ankara Univ |
| (5) Haroun Rabadi (University of Jordan) | 1983, Ankara Univ |
| (6) Ömer Akın (TOBB University
of Economics and Technology) | 1984, Fırat Univ |
| (7) Kerim Koca (Kırıkkale University) | 1987, Ankara Univ |
| (8) Tanıl Ergenç (Atılım University)
(Co-Supervisor: Metin Demiralp) | 1988, METU |
| (9) Kemal Leblebicioğlu (Middle East
Technical University) | 1988, METU |
| (10) Aydan Pamir (Bilkent University)
(Co-Supervisor: Metin Demiralp) | 1992, METU |
| (11) Faramarz Tahamtani (Shiraz University) | 1993, METU |
| (12) A.Feza Güvenilir (Ankara University) | 1995, Ankara Univ |
| (13) Sare Şengül (Marmara University)
(Co-supervisor: Kerim Koca) | 1996, Ankara Univ |
| (14) Uğur Yüksel (Atılım University)
(Co-supervisor: Kerim Koca) | 1996, Ankara Univ |
| (15) Mustafa Polat (Yeditepe University)
(Co-supervisor: V. Kalantarov) | 1999, METU |
| (16) Davut Uğurlu (Piri Reis University)
(Co-supervisor: V. Kalantarov) | 2001, METU |
| (17) Müjdat Kaya (Başkent Universty)
(Co-supervisor: V. Kalantarov) | 2005, METU |
| (18) Ümit Aksoy (Atılım University) | 2006, METU |

(5) Publications**Books**

- (1) A.O. Çelebi and Ü. Çelebi, *Differential Equations*, Modern Mathematics and Science Book Series, Vol. 126, Ankara, Ankara University Faculty of Science Publications, 1980 (Turkish).
- (2) A.O. Çelebi and Ö. Çakar; *Abstract Mathematics*, 5th ed., Vol. 14, Ankara, Ankara University Faculty of Science Publications, 2005 (Turkish).
- (3) A.O.Çelebi and M. Çağhyan, *Partial Differential Equations*, 2nd ed., Dora Publications, Bursa, 2010 (Turkish).

International Proceedings (co-edited)

- (1) A.O.Çelebi and B. Karasözen, Proceedings of the International Symposium on Numerical Analysis, METU, 1989.
- (2) A.O.Çelebi, A. Erkip, S. Koray and A. Topuzoğlu, The 34th IMO: A report on the International Mathematical Olympiad held in 1993 in Turkey; 1995.
- (3) A.O.Çelebi, H.G.W. Begehr and W. Tutschke, *Complex Methods for Partial Differential Equations*, ISAAC, Vol. 6, Kluwer, 1999.
- (4) A.O.Çelebi, H.G.W. Begehr and R.P. Gilbert, *Snapshots in applied complex analysis*, Proceedings of the Workshop on Recent Trends in Applied Complex Analysis, 1–5 June 2004, METU, Ankara, Turkey (published in J. Appl. Functional Anal. Vol. 2).
- (5) A.O. Çelebi, H.G.W. Begehr and R.P. Gilbert, *Further progress in analysis*, 6th International ISAAC Congress, Ankara, 13–18 August 2007.

Selected research papers

- (1) A.O. Çelebi, *On the generalized Tricomi's equation*, Comm. Fac. Sci. Univ. Ankara Ser. A 17 (1968), pp. 1–31.
- (2) A.O. Çelebi, *Vekua's method for solving the equation $\sum_{i=1}^n \left(\frac{\partial^2 u}{\partial x_i^2} + \frac{\partial^2 u}{\partial x_{n+j}^2} + \frac{k_j}{x_{n+j}} \frac{\partial u}{\partial x_{n+j}} \right) = 0$ and a Cauchy problem for an ultrahyperbolic equation*, Comm. Fac. Sci. Univ. Ankara, Ser. A 23 (1974), pp. 137–142.
- (3) A.O. Çelebi, *Integral operators that generate solutions for a class of PDE*, J. K.T.Ü. 2 (1978), pp. 63–71.
- (4) A.O. Çelebi and M. Çağhyan, *A singular I.V.P. for an ultrahyperbolic equation*, Radovi Math. 4 (1988), pp. 375–382.
- (5) A.O. Çelebi and K. Leblebicioğlu, *An optimal control problem with non-linear elliptic state equation*, JMAA 164, pp. 178–205.
- (6) A.O. Çelebi and E. Anar, *A scattering problem in IR^n* , Bull. Inst. Math. Acad. Sinica 22 (1994), pp. 323–340.
- (7) A.O. Çelebi and U. Yüksel, *The Cauchy–Kowalewski theorem in the space of pseudoholomorphic functions*, Complex Variables 29 (1996), pp. 305–311.
- (8) A.O. Çelebi and E. Bairamov, *Spectral properties of the Klein–Gordon s-wave equation with complex potential*, Indian J. Pure. Appl. Math. 28 (1997), pp. 813–824.
- (9) A.O. Çelebi and A. Tiryaki, *On the nonoscillatory behaviour of solutions of third order differential equations*, Appl. Anal. 67 (1997), pp. 89–97.
- (10) A.O. Çelebi, Ö. Çakar and E. Bairamov, *Schrödinger operators with an energy-dependent potential: Discrete spectrum and principal functions*, JMAA 216 (1997), pp. 303–320.
- (11) A.O. Çelebi, V. Kalantarov and F. Tahamtani, *Phragmen–Lindelöf type theorems for some semilinear elliptic and parabolic equations*, Demonstratio Math. 31 (1998), pp. 43–54.
- (12) A.O. Çelebi and U. Yüksel, *Solution of initial value problems for pseudoholomorphic functions in conical domains*, Complex Variables 36 (1998), pp. 195–205.
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- (17) A.O. Çelebi and A.F. Güvenilir, *A note on asymptotic stability of a class of functional differential equations*, Indian J. Math. 42 (2000), pp. 37–41.
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- (19) A.O. Çelebi, K. Leblebicioglu and U. Halici, *Infinite dimensional Hopfield neural networks*, Nonlinear Anal. 47 (2001), pp. 5807–5813.
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- (39) A.O. Çelebi, S. Gür and V. Kalantarov, *Structural stability and decade estimate for marine riser equations*, Math. Computer Model. 54 (2011), pp. 3182–3188.
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