

PREFACE

It is with great honor that we introduce this special volume commemorating the 65th birthday of Professor Akram Aldroubi. As an esteemed mathematician currently holding the Stevenson Chair of Mathematics at Vanderbilt University, Professor Aldroubi's impact on the field is truly remarkable. Elected as a Fellow of the American Mathematical Society in 2014, his contributions transcend traditional boundaries, encompassing modern harmonic analysis and its myriad applications across scientific and engineering disciplines.

Professor Aldroubi's influence extends far beyond his academic achievements. He has served as a catalyst for collaboration, fostering meaningful research relationships among mathematicians worldwide. His leadership and dedication have facilitated the exchange of ideas, propelling advancements in diverse fields and inspiring generations of scholars. The contributions gathered in this volume serve as a testament to Professor Aldroubi's profound impact on modern harmonic analysis and its applications. His pioneering work in wavelet theory, sampling theory, frame theory, and mathematical imaging has reshaped the landscape of mathematics, science, and engineering. From innovative scaling functions and wavelets tailored for specific applications to groundbreaking advancements in dynamical sampling and mathematical imaging, Professor Aldroubi's research has ushered in new frontiers of exploration and discovery.

Yet, Professor Aldroubi's influence extends beyond the realm of academia. He is deeply committed to advancing mathematics education and fostering international collaboration. Through his leadership in organizing conferences, workshops, and educational programs, he has enriched the mathematical community in the USA and beyond.

In summary, this special volume stands as a testament to Professor Aldroubi's outstanding contributions to mathematics and his enduring legacy as a scholar, mentor, and ambassador for the mathematical sciences.

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