

البحث الأول

Title: Dynamic Hardy-type inequalities with non-conjugate parameters

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Abstract. Within this paper, we derive entire series of new Hilbert and Hardy-Hilbert form integral inequalities with non-conjugate exponents on time scales. Firstly, we demonstrate and discuss two general equivalent inequalities of this type, as well as their corresponding reverse inequalities. We also extend Hilbert and Hardy-Hilbert inequalities in their most general form. The results obtained are then applied to a kernel of special Hardy form. Our results as special cases extend some of the dynamic inequalities achieved on time scales and also include some integral inequalities as special cases when $\mathbb{T} = \mathbb{R}$.