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CONTENTS

Abstract: Hermite-Hadamard inequalities for integrals of convex functions on simplices are considered with respect to approximation accuracy and application to convex polytopes. The simple midpoint and trapezoidal rules on simplices are used as basic elements for constructing various Hermite-Hadamard type inequalities and integration procedures by domain subdivision.

Abstract: In this paper we consider, discuss, extend and complement some recent cyclic-type results established by T. Abdeljawad et al. [T. Abdeljawad, J. O. Alzabut, A. Mukheimer and Y. Zaidan, Banach contraction principle for cyclical mappings on partial metric spaces, Fixed Point Theory Appl., 2012, 2012:154], V. Berinde, F. Vetro [V. Berinde, F. Vetro, Fixed point for cyclic weak (ψ, C)-contractions in 0-complete partial metric spaces, Filomat 27:8 (2013), 1405-1413], E. Karapinar, V. Rakocevic [E. Karapinar, V. Rakocevic, On cyclic generalized weakly C-contractions on partial metric spaces, Journal of

Applied Mathematics, 2013, Article ID 831491, 8 pages] and H. K. Nashine, Z. Kadelburg [H. K. Nashine, Z. Kadelburg, Fixed Point Theorems Using Cyclic Weaker Meir-Keeler Functions in Partial Metric Spaces, Filomat 28:1 (2014), 7383].

Abstract: At first we give two characterizations of the regulated domain: (1) when the regulated function $\beta(t)$ for regulated domain is continuous on $[0, 2\pi]$, the boundary of the regulated domain is asymptotically conformal; (2) when $\beta(t)$ is continuous except for the jumps $\delta_k\pi$ at t_k, here $k = 1, 2, \ldots$, then

$$\lim_{|z|\to 1} \sup \mid \frac{f''}{f'} \mid (1 - |z|^2) = 2 \sup_k \delta_k.$$

Secondly we establish relation between the radius univalence by pre-Schwarizan derivative of domains D_n and D when D_n converges to D in the sense of Carathéodory kernel convergence.

Abstract: In this article, we establish some fundamental strict and non-strict differential inequalities for a certain implicit fractional causal differential equation. Next, we prove similar results for the implicit fractional causal differential equations of distributed order involving the Riemann-Liouville differential operator of order $0 < q < 1$ with respect to a nonnegative density function.

Abstract: The main objective of this paper is to study the general refinement the multidimensional Hilbert-type inequality in whole plane.

Abstract: In this paper, we characterize trees whose pathos graphs are complete, bipartite, hamiltonian, planar or outerplanar, in terms of forbidden subgraphs. Moreover, we present a criterion for trees which have minimally non-outerplanar unique pathos graphs. Finally, we solve the graph equations: $P(T) = L^k(G)$ and $P(T) = M^k(G)$ for $k \geq 1$, and obtain some pair of graphs (T, G) which satisfy the equations: $P(T) = \overline{L(G)}$, and $P(T) = \overline{M(G)}$ and also propose an open problem for further research.

Abstract: Let S be a g-monoid with quotient group G. Let $\bar{\mathrm{F}}(S)$ (resp., $\mathrm{F}(S)$, $\mathrm{f}(S)$) be the S-submodules of G (resp., the fractional ideals of S, the finitely generated fractional ideals of S). Briefly, set $\mathrm{f} := \mathrm{f}(S)$, $\mathrm{g} := \mathrm{F}(S)$, $\mathrm{h} := \bar{\mathrm{F}}(S)$, and let $\{\mathrm{x}, \mathrm{y}\}$ be a subset of the set $\{\mathrm{f}, \mathrm{g}, \mathrm{h}\}$ of symbols. For a semistar operation $\star$ on S, if $(E + E_1)^\star = (E + E_2)^\star$ implies $E_1^\star = E_2^\star$ for every $E \in \mathrm{x}$ and

every $E_1, E_2 \in$ y, then $\star$ is called xy-cancellative. In this paper, we prove that a gg-cancellative semistar operation need not be gh-cancellative.

Tanusree Choudhury

SET-VALUED MEASURE AND SET-VALUED WEAK RADON-NIKODYM DERIVATIVE OF A SET-VALUED MEASURE 121-134

Abstract: We study some properties of the set-valued measure and set-valued weak Radon-Nikodym derivatives of set-valued measures.

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