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UNIFIED INTEGRALS DEFINE BY EDWARD AND LAVOIE TROTTIER INVOLVING GENERALIZED FUNCTION

Mohit, Dr. Arun Kumar, Dr. Vineeta Basotia

[1]Research Scholar, Department of Mathematics, Shri Jagdishprasad Jhabarmal Tibrewala University, Jhunjhunu, Rajasthan

[2]Assistance Professor, Department of Mathematics, Shri Khushal Das University, Hanumangarh, Rajasthan

[3]Associate Professor, Department of Mathematics, Shri Jagdishprasad Jhabarmal Tibrewala University, Jhunjhunu, Rajasthan

Email id: [1]mohitjangra3006@gmail.com, [2]rnkumar535@gmail.com

ABSTRACT

In the applied sciences, different essential limits are represented by means of no recommended integrals or series or restricted things. These fundamental limits are commonly known as critical cutoff points. In the amazing limit, as far as possible (the Bessel limit), most of it is used in real science and planning; As a result, he has a great influence on physicists and specialists as well as mathematicians. In the subsequent year, a surprisingly vast number of severe conditions have been created, including a mixture of unusual breaking points.

The Bessel limit 〖J 〗_(v,p,q) (z), which is given to the extent that Hadamard deduced the (p, q)-extended Gauss hypergeometric limit and the Fox-Wright limit (z) Have given. , Various attractive expression positions of our focal results are also considered. Likewise, it turns around that the results presented here, which are clearly surprising series, may reveal their strange properties through 2 known features in their typical Hadamard thing.

INTRODUCTION

We start with verifying as far as possible that Ja(x) and Ya(x) are in fact the two responses to Bessel's differential condition. We then track the making execution and use it to emphasize some standard results in numbers and repeat relationships. We work with these discontinuous relationships to see the practice of as few unusual features as possible.

Then, we use shape mixing to choose their key representations, from which we can promote their asymptotic formulas. We also show an alternative strategy for overseeing the required Bessel boundary setting using making expertise. To wrap things up, the diagram created using Python proceeds to Bessel parts referring to zero, one, two, three and four.

In fact a cross combination method is proposed to manage the correction of the Bessel limits. A ladder supervisor with the Laplace transform procedure to deal with the zero deals Bessel condition. In illustration combining factorization techniques to oversee handling the second mentioned homogeneous differential conditions, the simple infinite series oversee serious results related to the Bessel condition, one of However, it does not spread completely forever. Many special relations including the Bessel limit.

These cutoff points are incredibly fixed to the two straight differential bosses and show after a while that these bosses are in fact connected to themselves in sensible places. Some mesmerizing properties of these schemes of endpoints such as stability, integrality, insufficient partner, and faultlessness, asymptotic conditions, recursive relations, and so forth have been shown to be really extensive. To wrap things up, these limits are actually used to fix even more partials to fix the three auxiliary differential states of the partial orders.

$$\lim_{\sigma \to 0^+} F(\sigma + i\omega) = \hat{f}(\omega)$$

$$G(s) = M\{g(\theta)\} = \int_0^\infty \theta^s g(\theta) \frac{d\theta}{\theta}$$

$$\Delta_T(t) \stackrel{\text{def}}{=} \sum_{n=0}^{\infty} \delta(t - nT)$$

$$x_q(t) \stackrel{\text{def}}{=} (t)\Delta_T(t) = x(t)\sum_{n=0}^{\infty} \delta(t - nT)$$

$$= \sum_{n=0}^{\infty} x(nT)\delta(t - nT) = \sum_{n=0}^{\infty} x[n]\delta(t - nT)$$

$$X_q(s) = \int_{0^-}^{\infty} x_q(t) e^{-st} dt$$

$$= \int_{0^-}^{\infty} \sum_{n=0}^{\infty} x[n]\delta(t - nT) e^{-st}$$

$$= \sum_{n=0}^{\infty} x[n] \int_{0^-}^{\infty} \delta(t - nT) e^{-st}$$

$$= \sum_{n=0}^{\infty} x[n]e^{-nsT}$$

A standard environment where round cutoff points and Bessel are actually visualized. We show using rational methods that the Gaussian gives an umbrella picture of these cutoff points. As progress parts between these groups of cutoff points, we uncover the control of the Bessel intersection close to a social phenomenon of the associated secondary polynomials.

To obtain results in expressing the summed Wright limits, Bessel–Struve expands the summed segmented evaluation recipes including the bit limits S_a(λz), λ, zϵ C.

The Bessel Limit is actually a reformulation of the deals with the second differential condition which takes advantage of the different cases, boosts to different types of Bessel functions and looks at the topic of zero. A free atom (zero potential) in a recipe for the time independent Schrödinger condition as applied to a tube molded piece of the sort (Newman cutoff point) and the round and zero bounds of the third kind (the Hankel parts of the second and first kind) .

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The Delerue hyper Bessel limits which appear as a multiple list conjecture of Bessel which is certainly a piece of the essential style are clearly connected to the hyper Bessel difference heads of conflicting deals introduced by Dimovski. In this work we look at a larger social phenomenon of hyperbessel functions and investigate the evolution of mixtures in such parts. The obtained results indeed correspond to the standard norm of the composite power series used as Cauchy Hadamard, Fatou and Abel conjectures.

In fact a vast solution of discrete numerical results involving different functions or different polynomials has been rotated by various trained professionals. Mixed and driven by reliable evaluation in this specific area , the builders that are in tied together style, various motivations lead to the fragmented numerical heads to the specific class of *multivariate polynomials as well as the multivariate H limit. The main goal of this paper is actually presenting a decision of the standard class of polynomials as well as new results for the polynomial H limit, including Riemann Liouville, Weil and other such fragmentary numerical precursors.*

Instead of associates of number deals we are using Riemann Liouville transform. Then, we solve the insufficiently changed Bessel condition like energy chain and also give an asymptotic evaluation of its guarantee for large battles. We track down a main interest explanation of the asymptotic recipe for the purpose of consideration regarding the situation. This advancement is actually numerically tested and shows high accuracy and fast connection.

Over the past 100 years, as well as its commitment to the challenges of proven science, organizing and applied science, various manufacturers have drawn and focused on various hypotheses of the Mittag Leffler type limit in their evaluation papers. This paper is in fact devoted to the estimation of additional features of the Mittag–Leffler limits E , γ , δ , q (z)*, which have another kind of deficient evaluation owner called the Weil fragmented key and differential key. . Based on the Weil segmented key major and another major major containing* $E\alpha$, β , p , γ , δ , q (z) *in its part is depicted and thought to express, its range. In addition, with the new manager Weil fragmented fundamental and the piece of the difference boss is spread.*

$$X(z) = \sum_{n=0}^{\infty} x[n] z^{-n}$$

$$Xq(s) = X(z)\Big|_{z=e^{sT*}}$$

$$F(s) = \int_0^{\infty} f(z) e^{-ez} dz$$

$$f(0^+) = \lim_{s\to\infty} sF(s).$$

$$Z = \left(C_1 e^{(1+\sqrt{1+a})x} + C_2 e^{(1-\sqrt{1+a})x}\right) C_3 e^{-ay}$$

$$X\frac{\partial^2 T}{\partial t^2} = C^2 \frac{\partial^2 X}{\partial x^2} T$$

$$\frac{X}{XT}\frac{\partial^2 T}{\partial t^2} = \frac{C^2 T}{XT}\frac{\partial^2 X}{\partial x^2}$$

$$\frac{1}{C^2 T}\frac{\partial^2 T}{\partial t^2} = -\lambda^2$$

In the continuation paper, the authors summarize two hypotheses of fragmented subordinate bosses given by Saigo-Maeda. The hypotheses are basically formulated as a general class of polynomials with the help of $\bar{H}$-limit results and Cygo -Maeda power limit formulas. A considered midway parcel boss has F3 as a section as much as possible. It is shown that summing fractions of a general class of polynomials and the result of a $\bar{H}$-limit is transformed into another $\bar{ }$- limit of higher deals. Taking into account the general idea of Saigo-Maeda principals, $\bar{ }$- limits and a general class of polynomials provisional new and observed results can be obtained which include a kind of distinct cutoff point, which clearly The Wright hypergeometric limit is expressed, the Wright–Bessel limit is expressed, the polynomial, the Riemann zeta limit and the Whittaker limit, and so on.

Fragmented subordinates should be apparent either as predictable extensions of dated evaluations or as comprehensively more endlessly, as numerical heads represented by conventional miracles. It follows the view that the extinction event is represented as a systematic event of Brownian reformation taking place. Now, emphasize that the midway starts with states overseeing subordinated stable levy reform and that the fragmented mix is the executive's isolated point. The Midway solidification, and other extensions of it just realized, are actually joined by segmented Brownian (and Lévy) upgradation and accretion. In agreement with these traditional criteria, we observe Eulerian and Lagrangian numerical responses for partial and large differential conditions, and Eulerian techniques for stochastic integrals. These numerical approximations highlight the important idea of midway evaluation.

A surprisingly vast number of indispensable recipes have been created by many researchers, including classifications of specialized functions. Recently, Garg and Mittal obtained an interesting bound two-basis including the Fox H-function. More recently, Ali gave three attractive bounded together integrals involving the hypergeometric function $2\ F$ 1 , inspired by the work of Garg and Mittal. Additionally, several basic recipes have been introduced in the writings, including the Bessel function (z). Here, using Ali's strategy, the authors introduce two generalized essential equations including the main types of Bessel functions, which are expressed as convergent hypergeometric functions.

There are various fundamental transformations commonly used in materials science, cosmology, as in organizing. In the mid-90s Vatugala introduced another focal transformation, named Sumudu transformation and applied it to the system of standard differential position in charge building problems. So far as possible Sumudu and Laplace transforms have been presented and for evaluation reason, apply two transforms to the Aleph-potential to see the potential and equality. To the extent of the general idea of the Aleph-Limit , the new and observed results are novel phenomena of immense consequence.

$$\{\mu_n\}_0^\infty : \mu_0, \mu_1, \mu_2, \ldots;$$

$$\alpha(0) = 0, \quad \alpha(t) = \frac{\alpha(t+) + \alpha(t-)}{2}$$

$$\Delta_{\mu_n}^k = \sum_{m=0}^{k} (-1)^m \binom{k}{m} \mu_{n+k-m}$$

$$\lambda_{k,m}(x) = \binom{k}{m} x^m (1-x)^{k-m}$$

$$\int_0^1 |\varphi(t)|^p dt < \infty$$

It is standard that a piece of not really permanently settled can find application in the arrangement of difference and major circumstances of clear clause deals emerging in issues of real science and sorting areas.

By faithfulness to the general idea of the sago control limit and in a general class of polynomials the Riemann–Liouville and Erdelyi–Keber disjoint primes and provisional new and observed pictures including some exceptional cutoff points can be deduced from the required result.

An exceptionally fundamental level of earlier work dealing with the topic of fragmented numerosity gives a staggering record of the hypothesis and a vast number of proven evaluations of fragmented numbers use related principals, for example, of standard and half-difference. Position, Basic Conditions, Great Cutoff Marks, Sum of the Scheme, and so on. In paper, the manufacturer articulates and reinforces the generally important precursors given by Saigo. All the same, he makes two conjectures that give pictures of the $\bar{H}$-limit and the result of a general class of polynomials in the sago boss . Taking into account the general idea of SAIGO leaders, the $\bar{H}$-limit and a general class of polynomials embedded new and observed pictures including Riemann–Liouville and Erd'Ali–Keber fragmented principal bosses and a couple of surprising limits have been discovered by Wright. Given the hypergeometric limit is explicitly expressed, the summed Wright–Bessel limit, the polynomial and the Mittag–Leffler cutoff points can be obtained.

The Mittag–Leffler boundary has gained importance and inevitability during the latest multiple 10 years, essentially referring to the half way position of difference, head and division arising in clear issues of mathematical, physical, general and organizing sciences Due to its applications through action.

The Gaussian hypergeometric limit is of focal importance in the hypothesis of extraordinary limits. The meaning of this limit lies in how many reliably used pieces of applied science, numerical physics, systems and sensible science are expressed as surprising cases of it. Now, explicit integrals are introduced, including striking breaking points, hypergeometric limits of Gauss and results for the I-limit with Fox's H-limit.

The judicious use of the results is done accordingly to collect a quick assessment for their quantitative computation. We comment on the open door, for example, by summing the two framework summated Bessel limits\(\sum\limits_{n = - \infty }^\infty {t^n J_n^3 (x)} \), where J n is the round and zero basal part of certain fundamental type. The appropriate use of the results for issues of obvious interest is commented at the end. It has been shown that a modified shock part can be productively given to obtain an essentially explicit calculation of Bernstein's hard and fast law in the case of molecular waves.

$$\sum_{m=0}^{k}\left|\lambda_{k,m}\right| < \sum_{m=0}^{k}\frac{L}{k+1} = L$$

$$\begin{cases} \alpha.\beta = \alpha\beta = \gamma = \left\|c_{m,n}\right\|_0^k \\ c_{mn} = \sum_{i=0}^{k} a_{mi} b_{in} \end{cases}$$

$$M[P(t)] = \sum_{k=0}^{n}\alpha_k \mu_k .$$

$$\sum_{i=0}^{n}\sum_{j=0}^{n}\mu_{i+j}\xi_i\xi_j$$

In the reliable past the criteria of cue evaluation owners have been used in places such as standard segmented math, ideal control issues, answers to cue contrasts (cue key situations and differences), cue change test, etc. Some transformation and summation formulas for principal hypergeometric features as a use of Q differential pioneer constraints. In the paper, the makers introduced 2 hypergeometric heads of halfway cue joining, which should have been apparent as enhancements to the segmented cue-fundamental heads. By portraying the q enhancements of these bosses, the makers explored their fundamental qualities such as speculation by mixing and combining parts by parts with the q principal of Melin Change.

Mittag Leffler's use of the work is clearly shown as well as the applied and actual science parts. In this particular review paper, a wide variety of Mittag Leffler type limits that originally existed in the making are actually presented. In order to acquaint the social occasion with nonstop illustrations of evaluations in Mittag Leffler type limits and their causes, a careful outline of the contexts originally related to the Mittag Leffler parts is undertaken.

CONCLUSION

Basal limits deal with serious consequences related to each other mentioned differential condition that emerges in different collecting conditions. This paper closes as far as possible through the use of a blueprint answer to a differential condition, activates a variety of Bessel functions, and looks at the topic of zero. Finally, Bessel limits are seen as the answer to the Schroedinger condition in terms of round and zero conformance.

The improvement from the Feynman way of quantum mechanics is definitely more important which stands apart from the standard game-plan in the message of the head. Feynman integrals are fundamental and valuable in the audit and development of various variable hypergeometric series which are important in later quantum mechanics. The $\bar{H}$-limit is related to the bonafide part breaking point of the Gaussian model in quantifiable mechanics, testing hypotheses as the critical limit and its special cases, among various others.

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