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Title: Nevanlinna Theory for Meromorphic Functions

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Abstract: Nevanlinna theory is about a century old but still it is an active area of research since it has useful

consequences in other branches of mathematics such as number theory, differential geometry etc. This expository work is based on the study of Nevanlinna theory for meromorphic functions. It starts with the history and motivation behind the theory given by Nevanlinna which basically deals with the distribution of the values of meromorphic functions over the disk of finite radius. It mainly presents Nevanlinna's First Fundamental Theorem after achieving the characteristic function, Henri Cartan's Identity which gives the physical signi cance to the characteristic function with respect to its counting function and also presents the relationship between the characteristic function and the maximum modulus of the meromorphic function. This work is concluded by the proof of Second Fundamental Theorem of Nevanlinna and by the inequality between the proximity, counting and characteristic function as a theory behind the growth or behaviour of the

meromorphic function.

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