

Dissertation Review Form -for members of the Dissertation Commission-

Please write a review of the dissertation taking the following criteria into account, where appropriate:

- **General remarks**

The author studies the Cauchy problem for multidimensional difference equations with a lattice path problem and obtains formulae by using generating functions. Moreover, Chaundy-Bullard identity for vector partition functions and identity for generating functions are obtained. Several examples related to theorem are also given the dissertation. But the result of this dissertation is not easily accessible to a non-specialized-audience.

- **The significance and status of the dissertation in the field**

The Cauchy problem for the multidimensional difference equation is widely used in boundary value problems. The results will be the improvements in the knowledge of some boundary value problems and it is significantly advance this field.

- **The sufficiency and quality of the material**

The results of this thesis are theoretical results and it doesn't need any scientific material.

- **The adequacy of the methods used**

The candidate lists all important methods that are used to prove the results. It is enough to see the whole method of the dissertation. It can be made perfectly by describing sequentially.

- **The validity of results**

The dissertation is well written, contains well-argued, and proved mathematical results, and it is worth to defend her dissertation.

- **The logic of the dissertation's structure**

The logic of the dissertation's structure is written appropriately by separating the main results into three chapters. The first chapter focuses on the Cauchy problem in multidimensional difference equations. Chapter 2 deals with Chaundy-Bullard identity for vector partitions functions and the last chapter give the identity for generating functions.

- **The knowledge and use of literature in the field**

The author gives a compact historical Cauchy problem and multidimensional difference equations together with pointers to the theory of discrete dynamical systems and she references previous work correctly.

- **The project's contribution to the research area**

The results of this dissertation will fulfill theoretical results in Cauchy problem and generating functions.

- **The author's input into the achievement of the dissertation results**

The author organized the dissertation results in a proper way with a few typos.

- **Language**

The author used appropriate English to review the literature and good convey the proof of theorems.

- **The shortcomings of the manuscript**

The candidate already published three articles and seven conference proceedings.

Name of the PhD Candidate : Mrs Sreelatha Chandragiri
Planned Date of Graduation : October, year: 2020

Title of the Dissertation: «The Cauchy problem for difference equations in lattice cones and generating functions for its solutions»

Would you please elaborate upon your review with reference to the above mentioned criteria in the box below. Please add extra pages if needed


The author may prepare an outline of future challenges.

Name of the Dissertation Commission Member : Wirot Tikjha

Chair / Function :

Date : June, 3, 2020

Signature

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Please send the completed form to the Head of Department of Highly Qualified Personnel Training Grigorieva O.A. e-mail:grigorieva_00@mail.ru, tel. +7 (391) 206-22-62, address: 79/10 Svobodny pr., Room P6-16, 660041 Krasnoyarsk, Russia