## **DEFINITIONS**

## PETRO KOLOSOV

Abstract. Definitions

## Contents

1. Definitions 1

## 1. Definitions

• T(n,k) recursively defines central factorial numbers of the second kind (in the context of Knuth and Riordan (see references)). It is defined in mathematica package as CentralFactorialNumber1

$$\begin{cases} T(n,1) &= 1 \\ T(n,n) &= 1 \\ T(n,k) &= T(n-1,k-1) + k^2 T(n-1,k) \end{cases}$$

Date: July 22, 2023.

<sup>2010</sup> Mathematics Subject Classification. 26E70, 05A30.

 $<sup>\</sup>label{eq:Keywords} \textit{Key words and phrases.} \quad \text{Polynomials, Polynomial identities, Faulhaber's formula, Cental Factorial Numbers} \; .$