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**Vaishavi Sharma\***, vsharma1@tulane.edu. *Arithmetic properties of the sum of divisors.*

Given a prime  $p$ , the  $p$ -adic valuation of a number  $x$  is defined as the highest power of  $p$  that divides  $x$ . In this talk, I will discuss the  $p$ -adic valuation of the sum of divisors of an integer  $n$ . I will present a closed-form formula for  $\nu_p(\sigma(n))$  and discuss some upper bounds. This is joint work with Tewodros Amdeberhan, Victor Moll and Diego Villamizar (Received September 14, 2021)