

1154-05-1117      **Ae Ja Yee\*** (yee@psu.edu). *Index of seaweed algebras and integer partitions.*

The index of a Lie algebra is an important algebraic invariant. In 2000, Dergachev and Killilov defined seaweed subalgebras of  $\mathfrak{gl}_n$  (or  $\mathfrak{sl}_n$ ) and provided a formula for the index of a seaweed algebra using a certain graph, so called a meander.

In a recent paper, Vincent Coll, Andrew Mayers, and Nick Mayers defined a new statistic for partitions, namely the index of a partition, which arises from seaweed Lie algebras of type A. At the end of their paper, they presented an interesting conjecture, which involves integer partitions. In this talk, I will discuss their conjecture. This is joint work with Seunghyun Seo from Kangwon National University. (Received September 13, 2019)