# Discovering Namespaces in Mathematical Notation

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**Abstract**

While modern programming languages use name-spaces for means of modularity and expandability mathematical notation has no such concept. However, most scientific communities have established standard notation for mathematics relevant to their fields. We claim that the sharing of notation corresponds to the taxonomic distance of the research fields. Nowadays, digital communication plays a significant role in the transportation of mathematical concepts and ideas. We see advantages in using name-spaces for mathematical notation to reduce ambiguity and increase the widespread of ideas across community boarders. In this paper we extract identifier definition tuples from Wikipedia, and map them to classification sachems for mathematics and physics. Thereby, we get a hierarchy of identifier definition tuples for pairs.



## 1 The vision of namespaced Mathematics

## 2 Background and Related Works

## 3 The Machinery for Namespace Discovery

## 4 The Wikipedia Case study

## 5 Name spacing the ArXiv

## 6 Learning outcome: Namespaced Identifiers

Write evaluation

## 7 A long road ahead

Write future work