

- A subfactor is an inclusion of von Neumann algebras $N \subset M$ each with trivial centre.
- We're interested in II_1 factors (no minimal projections, the identity is finite).
- The index of $N \subset M$ is the von Neumann dimension of M as an N module.

Definition

The “even part of $N \subset M$ ” is the collection of N – N bimodules generated by ${}_N M_N$. It is a unitary semisimple \otimes -category. If the index is finite, it has duals.

The dimension of the object M is the index of $N \subset M$.

When there are finitely many simple objects (so the even part is a fusion category), we say $N \subset M$ is finite depth.