

## Introduction

One of the reasons that the measurement problem has not yet been solved is that the number of potential solutions to the problem is large. This is because there is a lack of known constraints on the problem, which essentially allows a large number of theories to be put forward. One should strive to reduce the class of potential solutions through the discovery of new constraints that the solution to the measurement problem obeys.

The application of potential constraints depends partly on whether or not the solution is ultimately an approach for which a closed system of particles constitutes a measurement device, or instead the solution is an open systems approach for which an external action is required on a set of particles in order for the particles to function as a measurement device. For both cases, constraints will be examined beginning with those constraints that can be considered regardless of whether or not a measurement device constitutes a closed system.

In those physical instances for which a large number of physical constraints were to exist that narrow state evolution to a single evolution law, then unitary evolution would be a reasonable law to consider. We begin by examining why Schrödinger's equation does provide a compelling rationale to explain evolution when a given system is overly constrained in such a manner by physical laws.