

# Formal Structure of Configuration Space

Dmytro Panasenko

October 2025

## Contents

<b>1</b>	<b>Introduction</b>	<b>2</b>
<b>2</b>	<b>Formal Structure of Configuration Space</b>	<b>2</b>
<b>3</b>	<b>Geometric Comparison</b>	<b>2</b>
<b>4</b>	<b>Zeno Effect as Morphing Fixation</b>	<b>2</b>
<b>5</b>	<b>Visual Geometry of Configuration Space</b>	<b>2</b>
<b>6</b>	<b>Implications for Experiment and Theory</b>	<b>2</b>
<b>7</b>	<b>Legal Attribution and Open Science</b>	<b>2</b>

## 1 Introduction

Motivation and Scope

Relation to Quantum Foundations

## 2 Formal Structure of Configuration Space

Metric Structure

Morphing Potential

Phase Surface

Example: Curved Metric

Example: Phase Surface on Curved Background

## 3 Geometric Comparison

Flat vs Curved Configuration (Table)

Collapse vs Fixation (Table)

## 4 Zeno Effect as Morphing Fixation

Configuration Geometry Note

Fixation Path (Diagram)

Collapse vs Fixation (Table)

## 5 Visual Geometry of Configuration Space

Fixation Path in Curved Configuration (Figure)

Phase Surface over Configuration Manifold (Figure)

Phase Gradient vs Curvature (Figure)

## 6 Implications for Experiment and Theory

Tunneling, Interference, and Measurement

Curvature-Driven Quantum Behavior

## 7 Legal Attribution and Open Science

Zenodo/GitHub Integration