

SURVEY PAPER

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ABSTRACT. Summarize the main points of paper without using too many formulas.

This file contains a template for the survey paper and a few principles you should follow when writing it. Feel free to change the section titles to suit your purposes, but please keep the overall structure of the paper.

Some guidelines to follow:

- Write clearly and concisely.
- Do not write about things you don't understand at all. It's OK to write about things you understand only partially.
- Put important formulas into separate lines.
- Include a bibliography.
- Don't start a sentence with a mathematical symbol.
- Do not put any proofs into the paper. (This is supposed to be a survey paper after all.)

1. INTRODUCTION

Here you should state what the paper is about and introduce the main problems you want to discuss.

2. THE BASICS

Define the basic notions, introduce the notation and terminology, state the fundamental questions (this time precisely and rigorously), etc.

Definition 1. A Morse function is a C^2 function $f : M \rightarrow \mathbb{R}$ with no degenerate critical points.

3. FUNDAMENTAL RESULTS

State some important fundamental results.

Theorem 1. *Every continuous vector field on S^{2n} vanishes at some point.*

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4. IMPORTANT EXAMPLES

Describe some important examples.

Example 1 (The Reeb foliation). Define a foliation of S^3 as follows, etc.

5. OPEN QUESTIONS

State some open problems in the field.

Question 1 (Smooth Poincaré conjecture). *Is there a smooth 4-manifold which is homeomorphic to S^4 but not diffeomorphic to S^4 ?*

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