Problem Chosen	2025 MCM / ICM Summary Sheet	Team Control Number
B		2503720

This is the title

Summary

Here is the abstract of our paper. Here is a test.

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- First
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The primary notations used in this paper are listed in Table 1.

Table 1: Notations

Symbol	Definition
A	the first one
b	the second one
α	the last one

2.3 Assumptions

The following reasonable assumptions are made to reasonably simplify the model:

- Government policies (such as taxes, subsidies, regulations, etc.) remain unchanged during the period of the model.
- No major event compromising or promoting the tourism industry will occur during the period of our model.
- Consumer behavior, consumer preferences, or market demand are assumed to remain unchanged.

3 Task 1: Model for Tourism Industry in Juneau

3.1 Introduction

In this section we need to select factors to quantify and track the tourism industry in Juneau. It is impossible and unnecessary to consider all the factors that may affect the tourism industry, only those that are relevant to the problem need to be considered. Drawing on the idea of the divide-and-conquer algorithm, we first divide the factors into three categories: economy, society and environment.

$$\text{Output} = \alpha \cdot \text{Economy} - \beta \cdot \text{Society} - \gamma \cdot \text{Environment} \tag{1}$$

Our goal is to maximize the economy income, minimize the social cost and environmental impact, where parameters α, β and γ denote how much importance we attach to each category. Intuitively, the goal aforementioned is equivalent to maximizing the output.

Each category is further divided into several minor factors such as local population, number of tourists to extrapolate a mathematical model fitting the circumstances in Juneau, which will be discussed in the following sections.

3.2 Economy

In this section we consider the actions that will contribute to the income of the tourism industry in Juneau, which are tourists' consumption, tax income and fines.

3.3 Society

Societal factors such as infrastructure, price of housing products, and the mental loss due to the overcrowding and rowdy tourists all account for the social cost of the tourism industry.

3.4 Environment

According to the official website of Juneau, its tourism industry is mainly comprised of glacier tours, whale watching, rainforest tours and others. We assume each of these activities accounts for a certain percentage of the total environmental impact, denoted as v_1, v_2, v_3 and v_4 respectively. Due to the receding of glaciers, our goal is to lower the percentage of glacier tours and increase the percentage of other activities.

The main factors that affect the environment are carbon emissions and human disturbance, which will be discussed as follows.

4 Task 2: Model Adaptation and Migration

In the previous section, we have established a model to quantify the tourism industry in Juneau. Based on this model we…

5 Task 3: Memo

Appendix A Further on LaTeX

Appendix B Program Codes

```cpp
#include <iostream>
using namespace std;
int main() {
    cout << "Hello, World!" << endl;
    return 0;
}
```

References

- [1] Einstein, A., Podolsky, B., & Rosen, N. (1935). Can quantum-mechanical description of physical reality be considered complete?. *Physical review*, 47(10), 777.
- [2] *A simple, easy LaTeX template for MCM/ICM: EasyMCM*. (2018). Retrieved December 1, 2019