

**Problem Chosen**

**A**

**2022  
MCM/ICM  
Summary Sheet**

**Team Control Number**

**XJ162**

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**test**

**Summary**

123

**Keywords:** 123456

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# 1 Introduction

## 1.1 Problem Restatement

## 1.2 Overview of Our Work

# 2 Assumptions and Justifications

# 3 Notations

Table 3.1: Notation Descriptions

Symbol	Definition
$\mathbf{A}$	A set of artists given in dataset
$\mathbf{G}$	A set of genres provided in dataset
$f_i$	The total number of followers of artist $i$ , $i \in \mathbf{A}$
$g_{ij}$	Genre tag between artist $i$ and his or her follower $j$ , $i, j \in \mathbf{A}$
$DAS_i$	Artist $i$ 's decade of active start, accurate to 10 years
$r_{ij}$	Respective Influence of influencer $i$ over follower $j$ , $i, j \in \mathbf{A}$
$w_i$	Artist $i$ 's weight of normalized indexes
$TI_i$	Artist $i$ 's Total Influence
$wf_j$	The parameter of follower $j$ ' influence, $j \in \mathbf{A}$
$wt_i$	The weight of artist $i$ 's Total Influence, $i, j \in \mathbf{A}$
$cg_{ik}$	Artist $i$ 's Contemporary Influence in certain genre, $i \in \mathbf{A}, k \in \mathbf{G}$
$c_i$	Artist $i$ 's Contemporary Influence, $i \in \mathbf{A}$
$S_{ij}$	Similarity between artists $i$ and $j$

# 4 Model I:Directed Network of Musical Influence Model

# 5 Sensitivity Test

# 6 Evaluation of Model

# 7 Conclusions

# **REPORT**

**To:** ICM society

**From:** ICM Team 2104997

**Date:** January 13, 2022

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## References

- [1] ZHANG Xianfeng, and Wang Kexiong. "Population viability analysis for the Yangtze finless porpoise." *Bulletin of the Chinese Academy of Sciences:English Edition* 27.1(1999):3473-3484.

# Appendices

**Input matlab source:**