



Année universitaire
2021/2022

Module : Anglais technique
Durée : 60 min

Nom prénom :	Spécialité :	Group :
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English exam

- Scientific papers are for sharing your original research work with other scientists. It is often structured in seven sections: first, Abstract, Introduction; then Materials and Methods, Results, Discussion; and finally, Conclusion. In the following, some disorganized parts of a scientific paper, **name each part** and provide a **suitable title to this paper**:

We propose an effective and fast heuristic method for UTP. The proposed method is structured into three main successive steps where the input is the number of the teams ($n < 10$) and the output is a set of DRRT schedules for sport leagues with low-cost travel. The different steps of the proposed method for UTP are given as follows:

Step 1. Generation of all the possible rounds: In this step, we create all the possible rounds by enumerating all the perfect matching of the initial directed graph of the teams GT (H, E) (Sect. 4.1). We note that, a perfect matching of a graph is a matching in which every vertex of the graph is incident to exactly one edge of the matching.....

Q1

..... Table 2 gives the numerical results obtained by our approach on the different NL, CON, CIRC, and SUPER instances. The first column gives the name of the instance. The column (best-known) is the best known solutions for the considered instance (UTP) [9].....

Q2

This paper proposed a novel and effective heuristic for the well-known UTP which is the problem of scheduling a double round robin tournament, by minimizing the total distances traveled by the teams. The proposed method is a graph-based heuristic where the input is the number of the teams ($n < 10$) with asymmetric n by n integer distance matrix that represents the distance between team sites and the output is a set of DRRT schedules for sports leagues with low-cost travel. The proposed approach is evaluated on several instances and compared with the state-of-the-art. The numerical results show the performance of the proposed approach. The latter significantly improves the current best solutions for the considered National League (NL) instances. Further, the proposed approach is able to produce new good solutions to unsolved Rugby League composed of teams from New Zealand, Australia, and South Africa (SUPER) instances. It is important to note that our contribution is not only to achieve a good algorithm to solve UTP but also to propose a new strategy



to generate appropriate schedules for sport leagues with low-travel cost. As future work, we plan to combine our approach with integer programming-based methods to solve large TTP instances.

Q3.....

.....TTP is a difficult problem to solve, and it is known to be NP-hard [22]. In this work, we are interested in the unconstrained traveling tournament problem (UTTP) which is a variant of TTP. UTTP is also an NP-hard problem [3]. In this paper, we propose an effective heuristic for UTTP. We propose a graph-based heuristic able to yield promising results for a number of teams $n < 10$. We use as a model a complete graph $GT (H, E)$ where the set $H = \{h_i\}_{i=1}^n$ of the vertices represents the home of the team t_i , and the set of edges E , are weighted by the distance $dis(h_i, h_j)$ between the home of teams t_i and t_j . Our method is based on the perfect matching of graphs of rounds where the input is the number of the teams ($n < 10$) and the output is a DRRT schedule. The proposed method produces new good solutions on some unsolved UTTP instances. A significant improvement is noted over previous approaches for National League United States (NL) instances.

The rest of this paper is organized as follows. Section 2 gives a background on the TTP problem. Section 3 presents some related works. Section 4 details the proposed approach. Section 5 gives the numerical results and the comparison of our results with the best ones existing in the literature. Finally, Sect. 6 concludes and gives some perspectives.

Q4.....

This paper proposed a novel and effective heuristic for the well-known UTTP which is the problem of scheduling a double round robin tournament, by minimizing the total distances traveled by the teams. The proposed method is a graph-based heuristic where the input is the number of the teams ($n < 10$) with asymmetric n by n integer distance matrix that represents the distance between team sites and the output is a set of DRRT schedules for sports leagues with low-cost travel. The proposed approach is evaluated on several instances and compared with the state-of-the-art. The numerical results show the performance of the proposed approach. The latter significantly improves the current best solutions for the considered National League (NL) instances. Further, the proposed approach is able to produce new good solutions to unsolved Rugby League composed of teams from New Zealand, Australia, and South Africa (SUPER) instances. It is important to note that our contribution is not only to achieve a good algorithm to solve UTTP but also to propose a new strategy to generate appropriate schedules for sport leagues with low-travel cost. As future work, we plan to combine our approach with integer programming-based methods to solve large TTP instances.

Q5.....

Q6 The proposed title is.....

- Read and answer true or false: In a scientific paper:

Q7: The goal of the material and method section is to make your project reproducible.



Q8: Make figures and tables clearly labeled and easy to read. If you include a figure or table, explain it in the results section

Q9: The abstract is a big version of your paper.

➤ Presentations have the advantage that many standard phrases can be used at various points. Here some useful expressions that perhaps you use to welcome the audience, introduce the speaker and the topic, outline the structure, or deal with questions. Classify the following phrases according to their uses: **WELCOM, REFERENCE TO SOURCES, INTRODUCING THE SPEAKER, INTRODUCING THE TOPIC, END OF A SECTION, LINKS** (to another point in your presentation) **EXPLANATION OF GOALS, QUESTIONS DURING THE PRESENTATION, GRAPHS AND IMAGES, UNKNOWN ANSWER, INTERIM CONCLUSION, EXAMPLES, TRANSITION** (to move on from one chapter to the next), **QUESTIONS AT THE END OF A PRESENTATION, STARTING POINT and LINKS:**

Exp Turning our attention now to...	TRANSITION
Q10 : To give you an example,...
Q11 : On behalf of "Company X", allow me to extend a warm welcome to you.
Q12 : Unfortunately, I'm not the best person to answer that
Q14 : Well, that's about it for this part. We've covered...
Q15 : Please stop me if you have any questions



- A CV is a detailed professional document highlighting a person's experience and accomplishments. This document shares an overview of your career history, education, relevant awards and honors, scholarships, grants, research, projects, and publications.

Match column A with its corresponding answer in column B:

Greenway M, Neill L, Smith J 'Apple or Biscuit: Children's food choices' (2020) *Journal of Child Nutrition* 20:934-939

Publications



Greenway M, Neill L, Smith J 'Mum, can I have something to eat: parents' role in children's eating patterns' *Journal of Child Nutrition* (2019) 16:723-728

Q16: --*Wolf Foundation*

Wolf Prize in Medicine, 2018

Contact informations

Awarded to up to three individuals globally, each year, for achievements in medical science.

Q17 : - Bachelor's Degree in History, Villa Maria College, Buffalo, NY

Awards and honors

Master's Degree in History, Silver Lake College, Manitowoc, WI

Q18 : Mariana Greenway

Academic history

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