# Article information:

Improving Air Crew Rostering by Considering Crew Preferences in the Crew Pairing Problem | Transportation Science  
<https://pubsonline.informs.org/doi/10.1287/trsc.2019.0913>

# Article summary:

1. The paper proposes a new variant of the Crew Pairing Problem (CPP) called the CPP with complex features (CPPCF), which takes into account crew preferences in order to create pairings that are better suited for the Crew Rostering Problem (CRP).

2. The CPPCF rewards pairings that contain six specific pairing features related to crew preferences.

3. The CPPCF is solved using a column generation algorithm and tested on seven real-world instances from a major North American airline, showing significant improvements in CRP solutions.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy, as it provides evidence for its claims and presents both sides of the argument fairly. The authors provide an overview of the two-step approach used by airlines to improve employee satisfaction, and then present their proposed solution – the CPPCF – which takes into account crew preferences in order to create pairings that are better suited for the CRP. They also provide evidence for their claims by testing the CPPCF on seven real-world instances from a major North American airline, showing significant improvements in CRP solutions.

The article does not appear to have any biases or one-sided reporting, as it presents both sides of the argument fairly and provides evidence for its claims. It also does not appear to have any unsupported claims or missing points of consideration, as all claims are supported by evidence and all relevant points are discussed. Additionally, there is no promotional content or partiality present in the article, as it focuses solely on presenting an objective analysis of the problem at hand.

The only potential issue with this article is that it does not explore any counterarguments or possible risks associated with implementing this solution. While this is understandable given the scope of this paper, it would be beneficial if these issues were addressed in future research.

# Topics for further research:

* Employee satisfaction in airlines
* Crew preferences in airline scheduling
* Risk assessment of airline scheduling solutions
* Benefits of crew pairing optimization
* Challenges of crew pairing optimization
* Alternative approaches to airline scheduling optimization

# Report location:

<https://www.fullpicture.app/item/abf9defcb41cf8cad38250a7c1866bfa>