

Data Mining for Aviation Safety

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Abstract

Historically, one of the primary means of increasing the safety of flying has been to investigate accidents to uncover root causes and put mitigations in place to prevent future accidents of the same type. With the rapid increase in the number of safety relevant data sources being collected, the possibilities have opened up for a more proactive approach based on analyzing data and looking for previously unknown or overlooked safety risks. In this talk, we will present an overview of the Aviation Safety Information Analysis and Sharing (ASIAS) program, a collaborative government and industry effort to monitor commercial aviation safety and proactively identify previously unknown safety risks within the system. We will discuss the role of data mining within the program and show examples of some of the approaches in use and under development.