Data science and analytics

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Data science and analytics are attracting more and more attention from researchers and practitioners in recent years. Due to the rapid development of advanced technologies nowadays, a massive amount of real time data regarding flight information, flight performance, airport conditions, air traffic conditions, weather, ticket prices, passengers comments, crew comments, etc., are all available from a diverse set of sources, including flight performance monitoring systems, operational systems of airlines and airports, and social media platforms. Development of data analytics in aviation and related applications is also growing rapidly. This paper concisely examines data science and analytics in aviation studies in several critical areas, namely big data analysis, air transport network management, forecasting, and machine learning. The papers featured in this special issue are also introduced and reviewed, and future directions for data science and analytics in aviation are discussed.

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