flight trajectory visualization

- journal publication
  - http://ieeexplore.ieee.org
- research topic
  - anomali detection
  - asessent of feasibility
  - asessment people skill to visualization
  - collision avoidance
  - enhancing computational efficiency
  - managing spation temporal data mining
  - multiscale visualization of trajectory data
  - people flow analisis
  - spatial pattern mining
  - trajectory forecast
  - trajectory generation
  - trajectory planning
  - trajectory similarity measurement
  - trajectory smoothing
  - trajectory visualization
  - vehicle motion trajectory clustering
  - visualization of multidimensional trajectory data
  - visualization of space-time trajectory data
  - visualization tool
- dataset
  - 2,000 different trajectories for the flight with departure airport Hamburg and arrival airport Munich
  - aircraft trajectory data
  - carStream
  - evacuation routes in a certain building named DOH
  - FAA's National Flight Data Center
  - flight data
  - flight operational data recorder
  - historical flight radar data from North China Air Traffic Management Bureau
  - https://c3.nasa.gov/dashli nk/resources/132/
  - maritime trajectory
  - musician travelling dataset
  - operations for San Francisco International Airport (SFO)
  - people flow datasets
  - people trajectories at a public transport hub in Graz, Austria
  - spherical coordinate position z respectively(xi,Yi, i) , (Xj,Yj,Zj), altitute
  - Starkey animal movement dataset
  - student of iowa state university
  - trajectory dataset (chrochronos.org)
  - vehicle trajectory data
  - weather data, base aircraft data (bada), data point
  - well-used Edinburgh
- method
  - classification
  - clustering framework in which a coarse- to-fine strategy
  - Historical anomaly detection
  - hybrid cubic B- spline and convex optimization method
  - longitudinal trajectory planning, Lateral Trajectory Planning
  - method is based on Star Coordinates
  - Multiscale Visualization
  - OCEANUS Visualizer from OCEANUS DSMS prototype
  - Optimization of Multilayer Perceptron Architecture (OMPA)
  - real-time dynamic Dubins- Helix (RDDH) method, Dubins- Helix trajectory generation, pitch angle smoothing
  - recurrent neural network (rnn) with long term short term memory (ltsm) and gate recurrent unit (gru)
  - spectral clustering
  - Sub-trajectory Clustering
  - Trajectory clustering
  - virus- evolutionary genetic algorithm (VEGA)
  - WEMSgen
- research problem
  - by dataset
  - by method
    - 4d trajectory prediction
    - anomaly classification
    - automated object tracking
    - classification
    - clustering
    - computational efficiency
    - determining trajectory position
    - hierarchical trajectory planning
    - improve sampling efficiency
    - longitudinal trajectory planning, lateral trajectory planning
    - minimun tim trajectory planning
    - pattern mining
    - trajectory classification
    - trajectory generation, path planning
    - trajectory modelling
    - trajectory prediction
    - trajectory preserving-synchronization
    - understanding trajectory data
    - visualization of continous query
    - visualization trajectory object