

SISTEMAS DE RECOMENDACIÓN

Assignment

February 2026



Jorge Gabín

Information Retrieval Lab
Computer Science Department
University of A Coruña



Assignment

- **The Spotify Million Playlist Dataset Challenge** consists of a dataset and evaluation to enable research in music recommendations.
- It follows the **ACM RecSys Challenge** 2018 edition.
- This is a dataset of 1 million playlists consist of over 2 million unique tracks by nearly 300,000 artists, and represents the largest public dataset of music playlists in the world.
- Each playlist in the MPD contains a playlist title, the track list (including track IDs and metadata), and other metadata fields (last edit time, number of playlist edits, and more).
- The goal of the challenge is to develop a system for the task of **automatic playlist continuation**.
- Participants have to create **a ranking of 500 recommended candidate tracks** for each target playlist.

Objective

- The objective of the assignment is to **read** and **process** the training playlist, and then **recommend** tracks from the dataset for the test playlist, and finally **evaluate** the results based on a provided set of gold data.
- As the golden truth for the challenge playlists is not provided we will use a modified dataset for training and evaluation:
 - <https://irlab.org/~sr-gced/>
(Usuario: gced – Password: replace-imperial-sherry)
 - Training set is the challenge training dataset with 10000 playlists removed
 - Test set is the remaining 10000 playlists, split the same way as the challenge set.
- There are no mandatory technologies, but a proper implementation of the solution is expected.

- You are expected to work in **teams of 2** people
- At the end of the course, every student should be able to explain and modify the work done. Do not over-specialise in a particular part of the task
- Evaluation will be based on both the accomplishment of the requirements and the quality of the project, including its efficiency and effectiveness.

- We need a baseline to compare our results against. Recommending popular items is a simple, non personalized approach that usually gives decent results.
 - You must process the training dataset and determine the most popular tracks.
 - For each playlist in the test dataset you must generate a ranked list of 500 tracks.
 - Tracks already present in the playlist seed must not be presents in the list of recommended tracks.
 - Results must be produced using the format specified in the challenge.
- We need to evaluate our results. We will use the metrics defined in the challenge: R-Precision, NDCG and Recommended Songs clicks.



Santosh Kabbur, Xia Ning, and George Karypis.

Fism: factored item similarity models for top-n recommender systems.

In Proceedings of the 19th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, KDD '13, page 659–667, New York, NY, USA, 2013. Association for Computing Machinery.



Xia Ning and George Karypis.

Sparse linear methods with side information for top-n recommendations.

In Proceedings of the Sixth ACM Conference on Recommender Systems, RecSys '12, page 155–162, New York, NY, USA, 2012. Association for Computing Machinery.