# Exoplanetary surface composition prediction using ML

## References:


https://arxiv.org/abs/2203.04201 :Follow the Water: Finding Water, Snow and Clouds on Terrestrial Exoplanets with Photometry and Machine Learning

https://ui.adsabs.harvard.edu/abs/2021MNRAS.504.6106P/abstract :Color classification of Earth-like planets with machine learning



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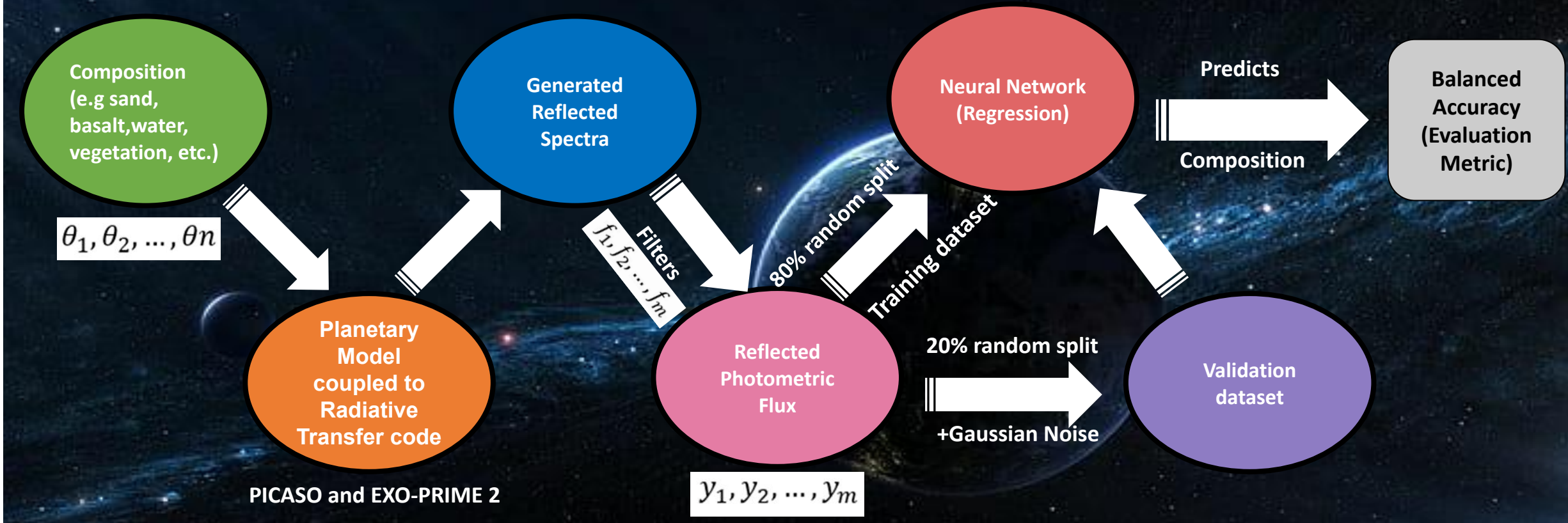
# Goal:

To identify the presence of minerals on the surface of exoplanets (mainly terrestrial) by implementing Machine Learning on the reflection photometric flux from spectra generated using planetary models (PICASO, Exo-Prime2) and spectral library (USGS and PSG).

# Pipeline:




# Dataset (source):

zenodo

NASA Planetary Spectrum Generator

PICASO

USGS science for a changing world