

Appendix: Plot Images

A. Bar Graphs

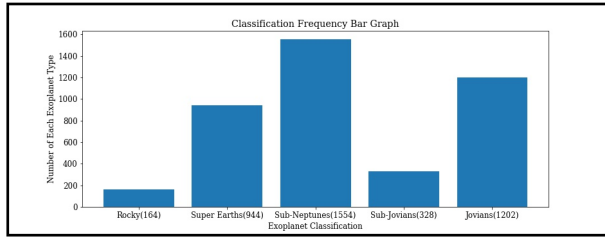


Figure A-1.1: Classification Distribution Bar Graph. Classification of Exoplanets computed by Table III on the x-axis and number of exoplanets on the y-axis. Calculated based on planet radius to classify into more broader categories. 1202 exoplanets unclassified by the scheme's range.

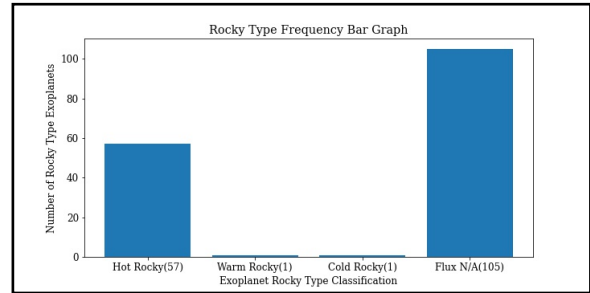


Figure A-1.2: Rocky Exoplanets Classification Bar Graph. Classification of Rocky Exoplanets computed by Table III on the x-axis and number of exoplanets on the y-axis. Calculated based on both stellar flux and planet radius to further classify Rocky exoplanets into hot, warm, and cold exoplanets. 105 N/A exoplanets missing stellar flux data.

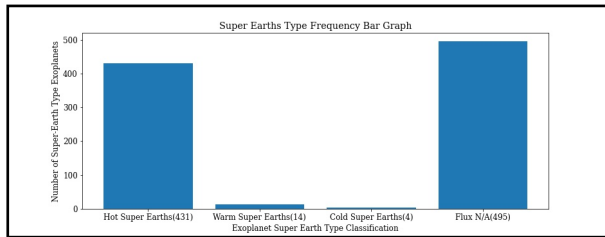


Figure A-1.3: Super-Earth Exoplanets Classification Bar Graph. Classification of Super-Earth Exoplanets computed by Table III on the x-axis and number of exoplanets on the y-axis. Calculated based on both stellar flux and planet radius to further classify Super-Earth exoplanets into hot, warm, and cold exoplanets. 495 N/A exoplanets missing stellar flux data.

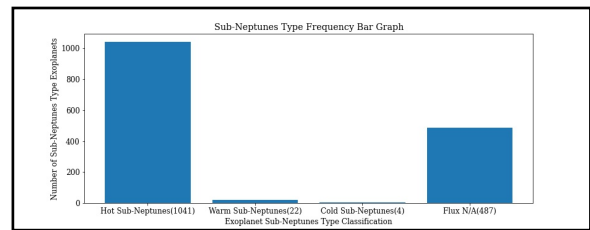


Figure A-1.4: Sub-Neptune Exoplanets Classification Bar Graph. Classification of Sub-Neptune Exoplanets computed by Table III on the x-axis and number of exoplanets on the y-axis. Calculated based on both stellar flux and planet radius to further classify Sub-Neptune exoplanets into hot, warm, and cold exoplanets. 487 N/A exoplanets missing stellar flux data.

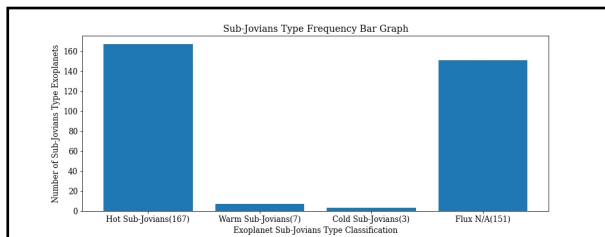


Figure A-1.5: Sub-Jovian Exoplanets Classification Bar Graph. Classification of Sub-Jovian Exoplanets computed by Table III on the x-axis and number of exoplanets on the y-axis. Calculated based on both stellar flux and planet radius to further classify Sub-Jovian exoplanets into hot, warm, and cold exoplanets. 151 N/A exoplanets missing stellar flux data.

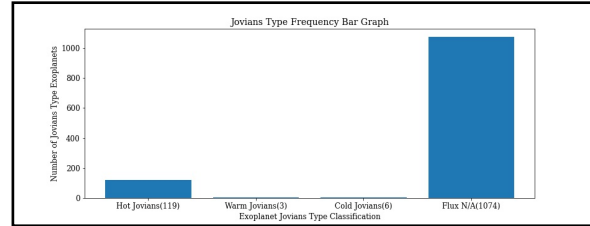


Figure A-1.6: Jovian Exoplanets Classification Bar Graph. Classification of Jovian Exoplanets computed by Table III on the x-axis and number of exoplanets on the y-axis. Calculated based on both stellar flux and planet radius to further classify Jovian exoplanets into hot, warm, and cold exoplanets. 1074 N/A exoplanets missing stellar flux data.

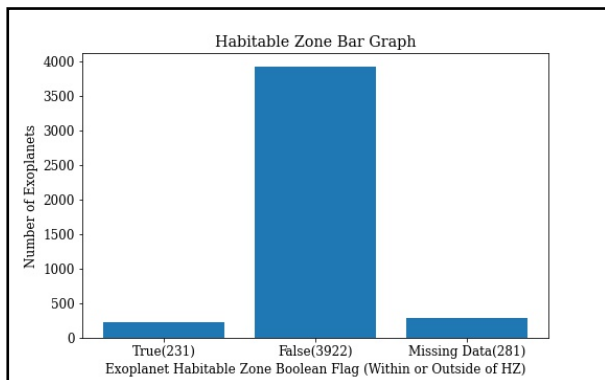


Figure A-2.1: Habitability Distribution Bar Graph. Computed by equations (1), (2), and (3). Boolean habitable value (True if exoplanet's orbit semi-major axis is within the habitable zone boundary and False if not) on the x-axis and number of exoplanets on the y-axis. 281 N/A exoplanets missing either orbit semi-major axis, stellar effective temperature, or stellar radius data.

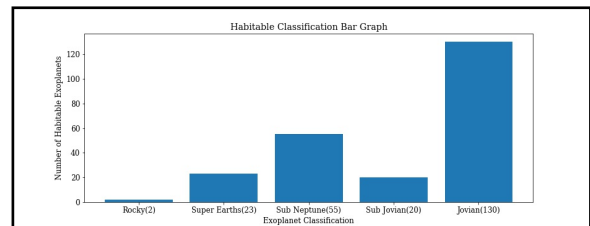


Figure A-2.2: Habitable Classification Bar Graph. Computed habitable exoplanets in each classification. Exoplanet classification on the x-axis and number of habitable exoplanets on the y-axis.

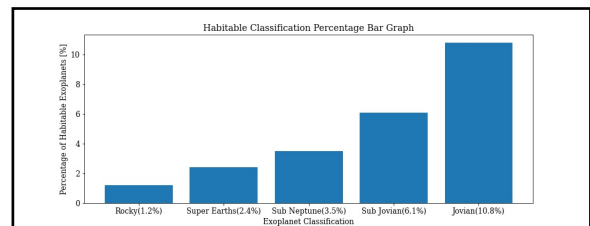


Figure A-2.3: Habitable Classification Percentage Bar Graph. Divided the number of habitable exoplanets in each category by the total number of exoplanets in each category. Exoplanet classification on the x-axis and percentage of habitable exoplanets on the y-axis.

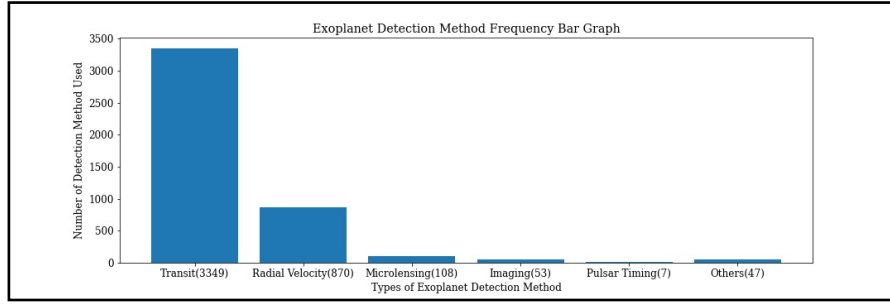


Figure A-3: Detection Method Distribution Bar Graph. Types of detection methods on the x-axis and number of confirmed exoplanets on the y-axis. 'Others' detection method includes Transit Timing Variations, Eclipse Timing Variations, Orbital Brightness Modulation, Pulsation Timing Variations, Disk Kinematics, and Astrometry.

B. Scatter Plot

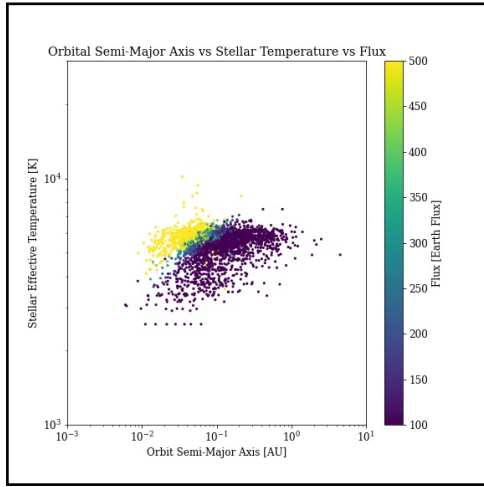


Figure B-1.1: Orbit Semi-Major Axis vs Stellar Effective Temperature vs Flux. Orbit semi-major axis in AU on the x-axis, stellar effective temperature in K in y-axis, and flux in gradient colors. Logarithmic x and y scale.

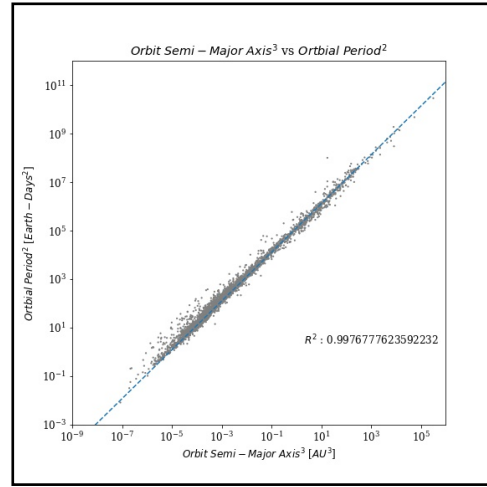


Figure B-1.2: (Orbit Semi-Major Axis)³ vs (Orbital Period)² Scatter Plot. (Orbit Semi-Major Axis)³ in AU³ on the x-axis and (Orbital Period)² in (Earth Days)² in y-axis. Logarithmic x and y scale. Testing dataset on the Kepler's third law. R^2 value of 0.9977, very close to 1, confirming that the dataset does follow the Kepler's third law. One outlier of CFBDSIR J145829+101343 b exoplanet at (Orbit Semi-Major Axis)³ of 17 and (Orbital Period)² of 10^8 .

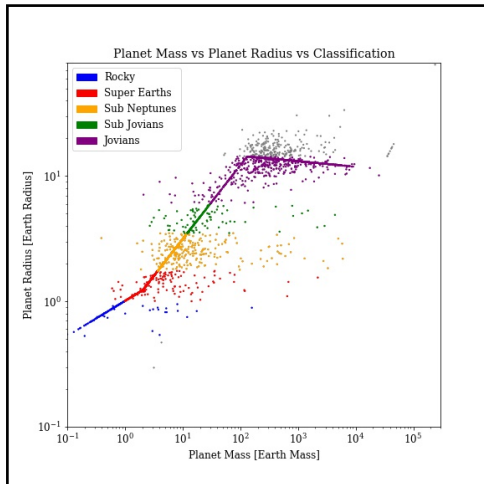


Figure B-1.3: Planet Mass vs Planet Radius vs Classification. Planet mass in Earth Mass on the x-axis, planet radius in Earth Radius in y-axis, and classifications in 5 different colors. Logarithmic x and y scale. Gray-colored dots are exoplanets that could not be classified by the scheme [6].

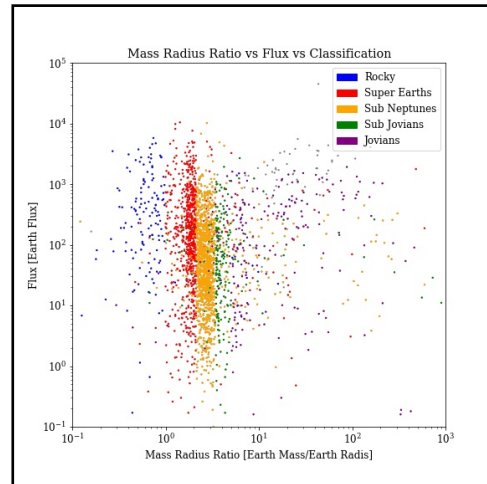


Figure B-1.4: Mass Radius Ratio vs Flux vs Classification. Mass radius ratio in (Earth Mass)/(Earth Radius) on the x-axis, insolation flux in Earth Flux in y-axis, and classifications in 5 different colors. Logarithmic x and y scale.

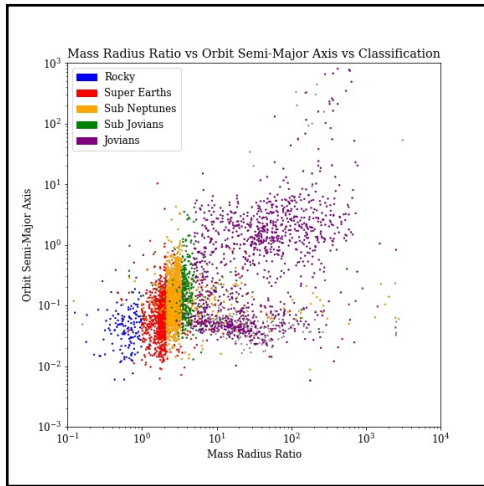


Figure B-1.5: Mass Radius Ratio vs Orbit Semi-Major Axis vs Classification. Mass radius ratio in (Earth Mass)/(Earth Radius) on the x-axis, orbit semi-major axis in AU in y-axis, and classifications in 5 different colors. Logarithmic x and y scale.

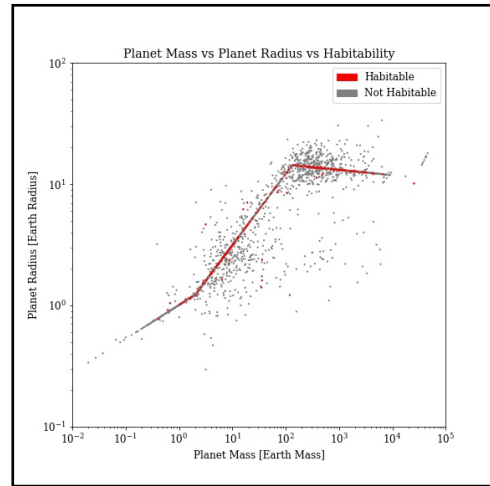


Figure B-2.1: Planet Mass vs Planet Radius vs Habitability Scatter Plot. Planet mass in Earth Mass on the x-axis, planet radius in Earth Radius on the y-axis, and habitability in color red. Logarithmic x and y scale.

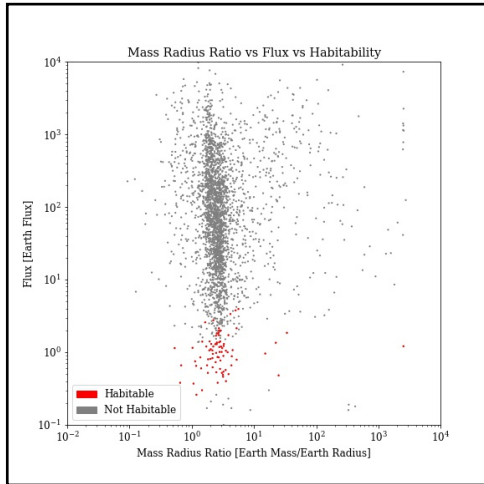


Figure B-2.2: Mass Radius Ratio vs Flux vs Habitability Scatter Plot. Mass-Radius-Ratio in Earth Mass/Earth Radius on the x-axis, insolation flux in Earth Flux on the y-axis, and habitability in color red. Logarithmic x and y scale.

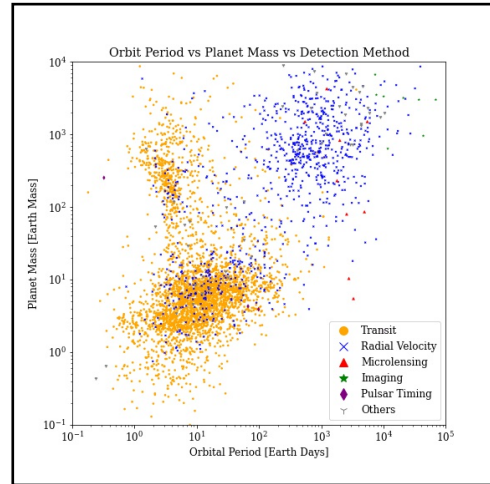


Figure B-3.1: Orbit Period vs Planet Mass vs Detection Method Scatter Plot. Orbital period in Earth Days on the x-axis, planet mass in Earth Mass on the y-axis, and detection method in 6 different colors and marks. Plotted on logarithmic x and y scale.

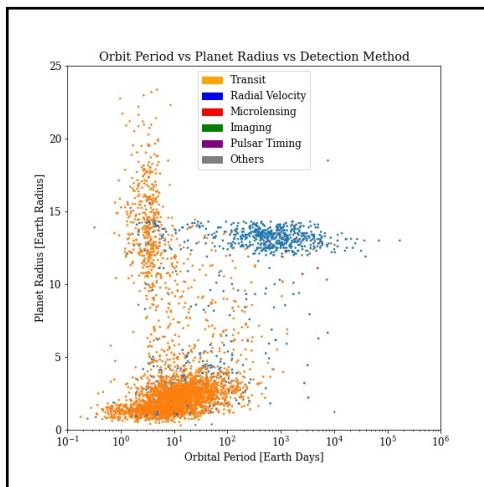


Figure B-3.2: Orbit Period vs Planet Radius vs Detection Method Scatter Plot. Orbital period in Earth Days on the x-axis, planet radius in Earth Radius on the y-axis, and detection methods marked in 6 different colors. Linear x and linear y scale.

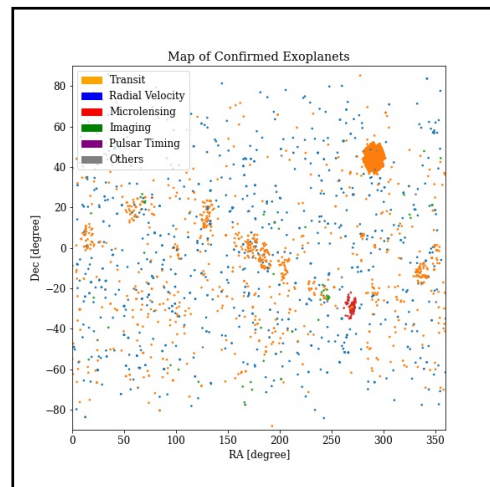


Figure B-3.3: Skymap of Confirmed Exoplanets. RA in degree on the x-axis, Dec in degree on the y-axis, and detection methods marked in 6 different colors. Linear x and y scale.