

Moving On Out  
Freshman Seminar 131

Robert J. Vanderbei

2024

# Important Update...

- Meeting with Neil deGrasse Tyson
  - Zoom meeting with Neil deGrasse Tyson has been rescheduled.

# Important Update...

- Meeting with Neil deGrasse Tyson
  - Zoom meeting with Neil deGrasse Tyson has been rescheduled.
  - Original plan was to meet on Tuesday, November 19, at 3:00pm

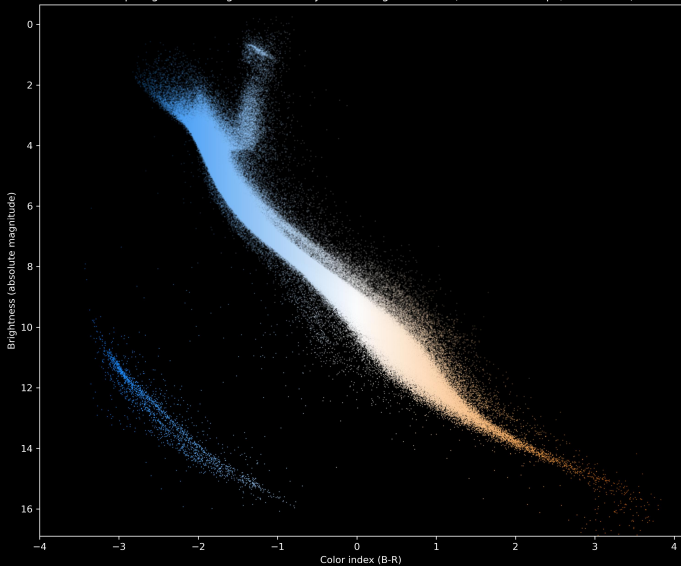
# Important Update...

- Meeting with Neil deGrasse Tyson
  - Zoom meeting with Neil deGrasse Tyson has been rescheduled.
  - Original plan was to meet on Tuesday, November 19, at 3:00pm
  - Updated plan is to meet on *Tuesday, December 3rd, at 3:00pm.*

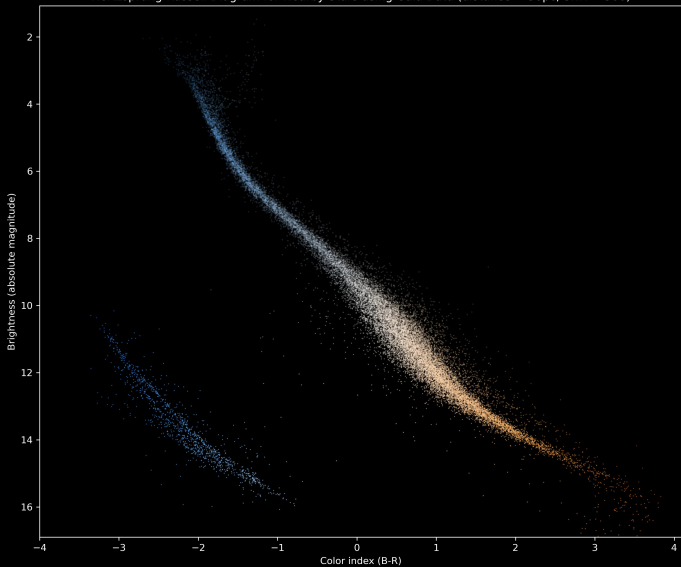
# Important Update...

- Meeting with Neil deGrasse Tyson
  - Zoom meeting with Neil deGrasse Tyson has been rescheduled.
  - Original plan was to meet on Tuesday, November 19, at 3:00pm
  - Updated plan is to meet on *Tuesday, December 3rd, at 3:00pm.*
  - The meeting will take place in 125 Sherrerd Hall.

Hertzprung-Russell Diagram for Nearby Stars using Gaia Data (distance < 333pc, SNR > 300)



Hertzsprung-Russell Diagram for Nearby Stars using Gaia Data (distance < 50pc, SNR > 300)

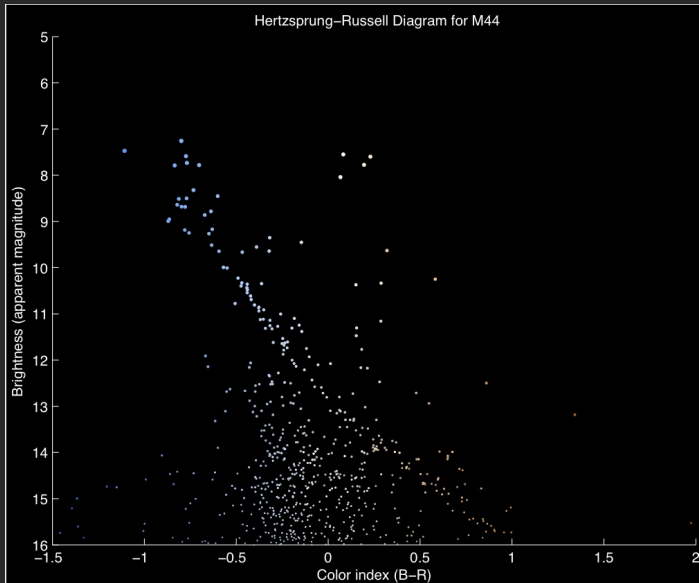


# Open Cluster M44 (Beehive)



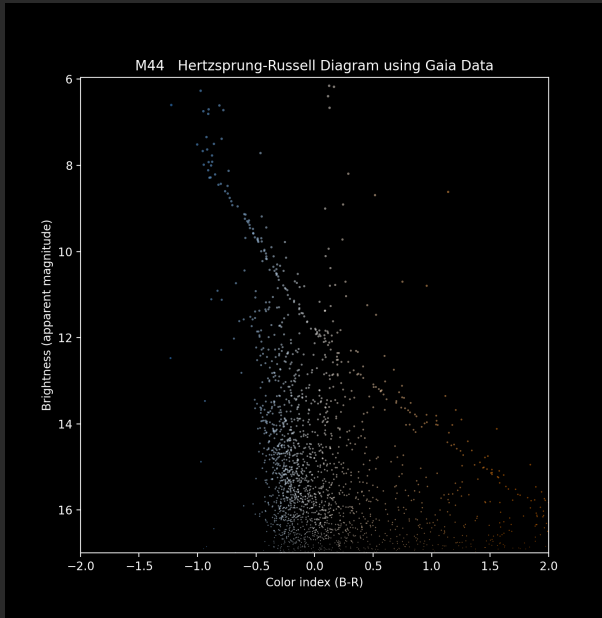
# Open Cluster M44 (Beehive)

# My Data



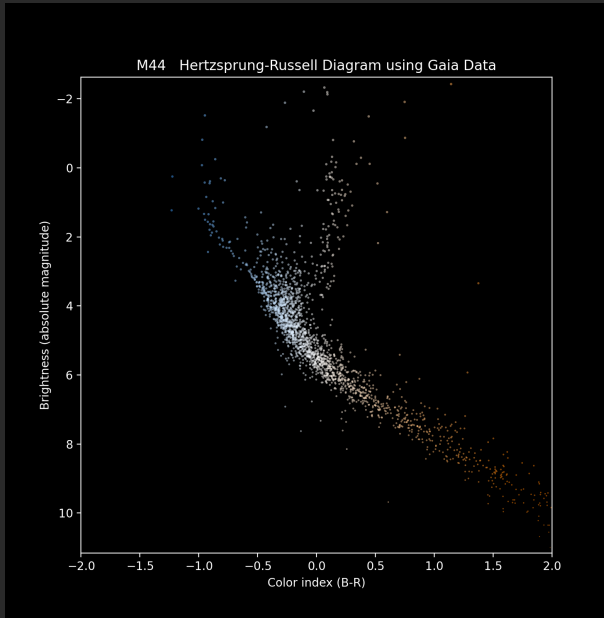
# Open Cluster M44

# Gaia-Apparent Mag.



# Open Cluster M44

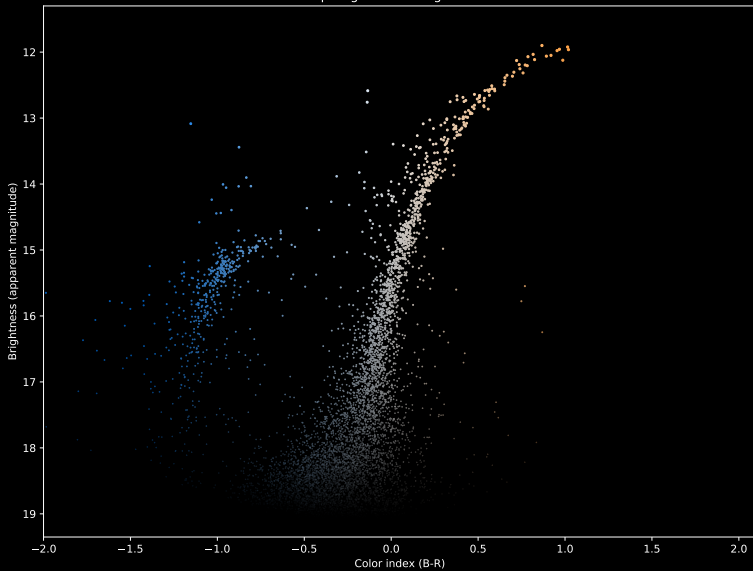
# Gaia–Absolute Mag.



# Globular Cluster M13



Hertzsprung-Russell Diagram for M13

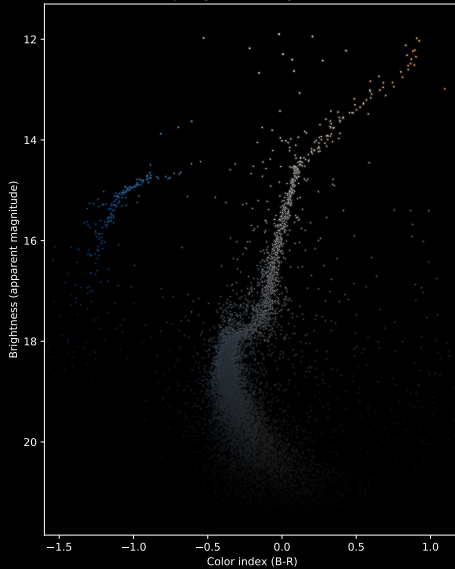


Globular Cluster M13

Tolga

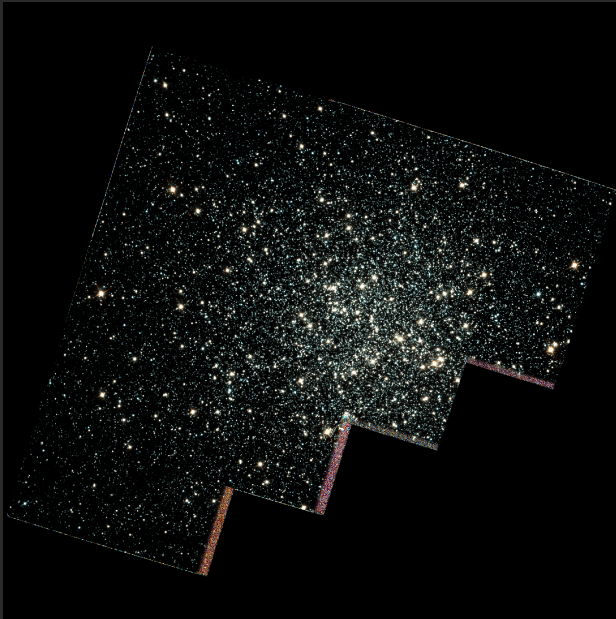


Hertzsprung-Russell Diagram for M13

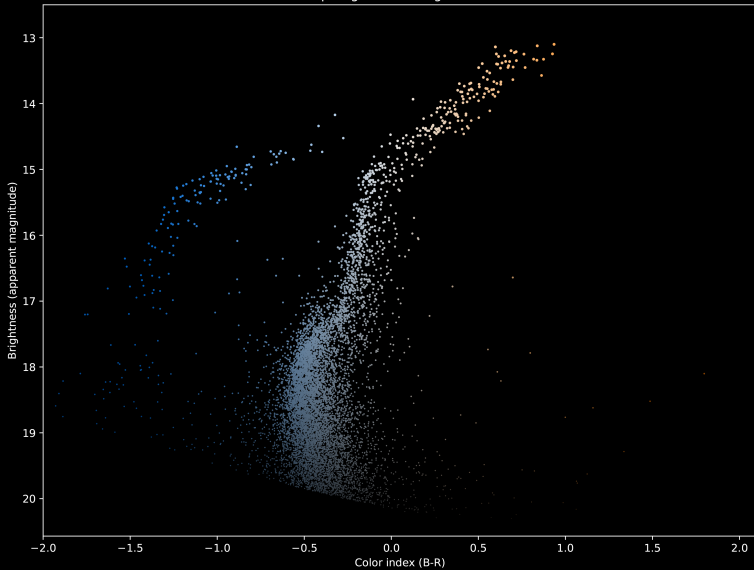


Globular Cluster M13

Hubble



Hubble Space Telescope  
Hertzprung-Russell Diagram for M13

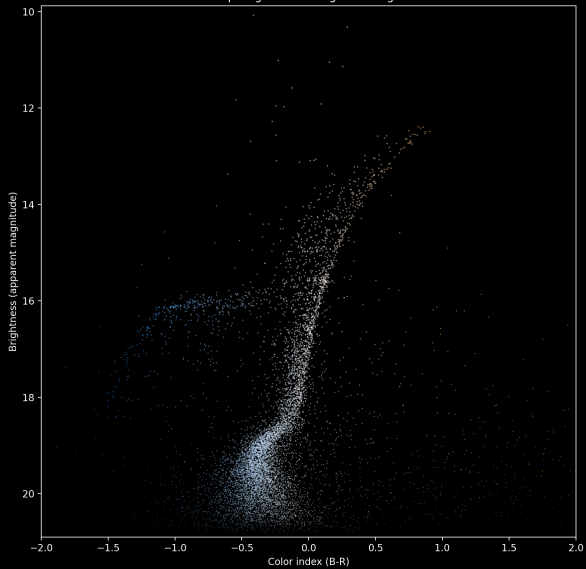


# HR-Diagrams of Globular Clusters

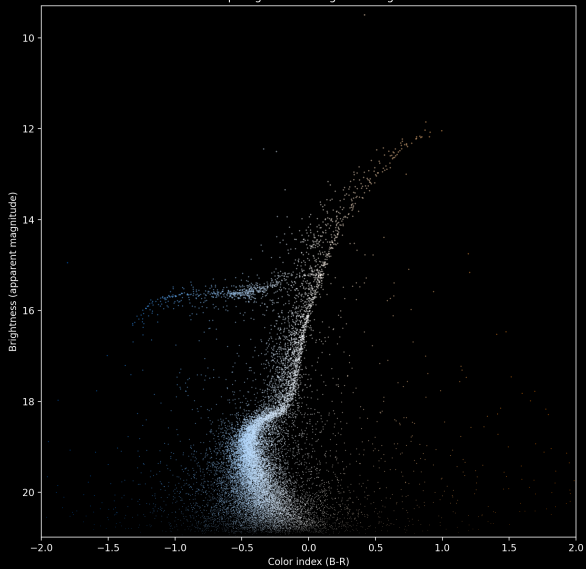
# HR-Diagrams of Globular Clusters

Using Gaia Data

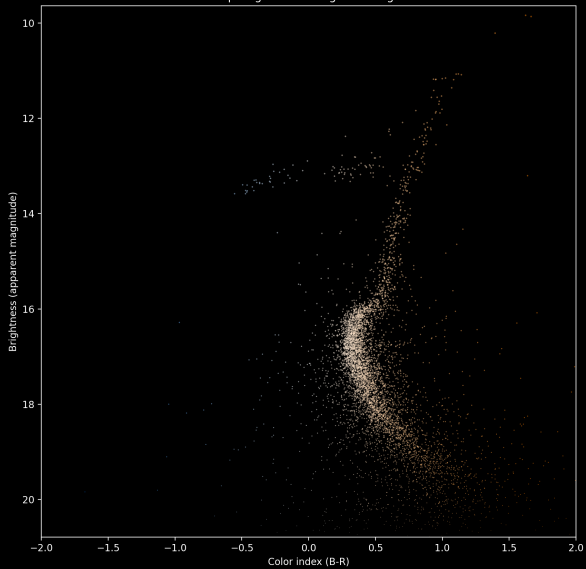
M2 Hertzprung-Russell Diagram using Gaia Data



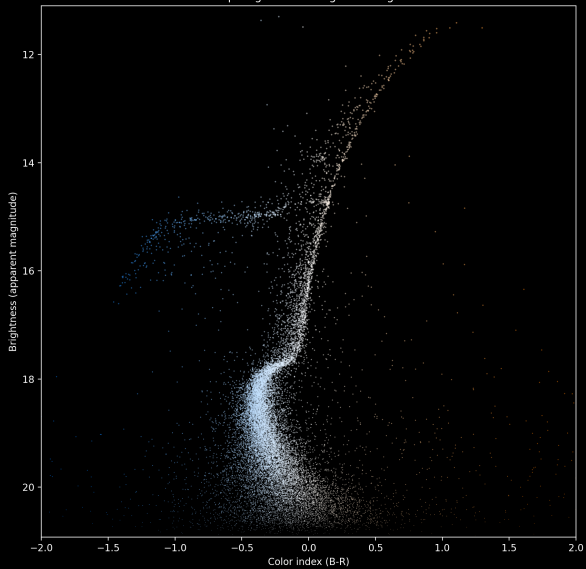
M3 Hertzprung-Russell Diagram using Gaia Data



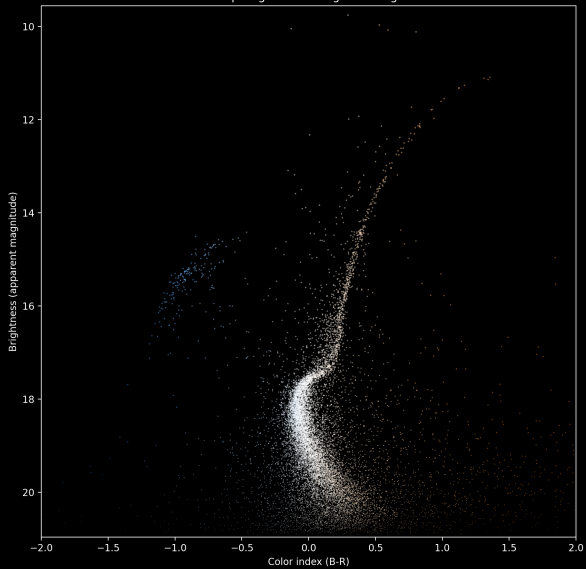
M4 Hertzprung-Russell Diagram using Gaia Data



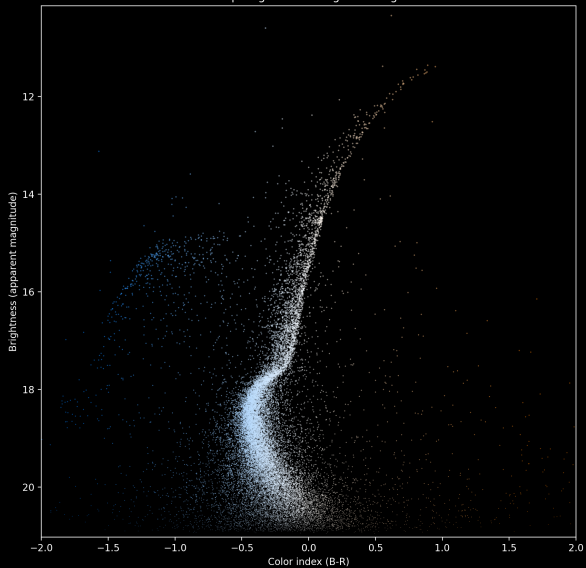
M5 Hertzprung-Russell Diagram using Gaia Data



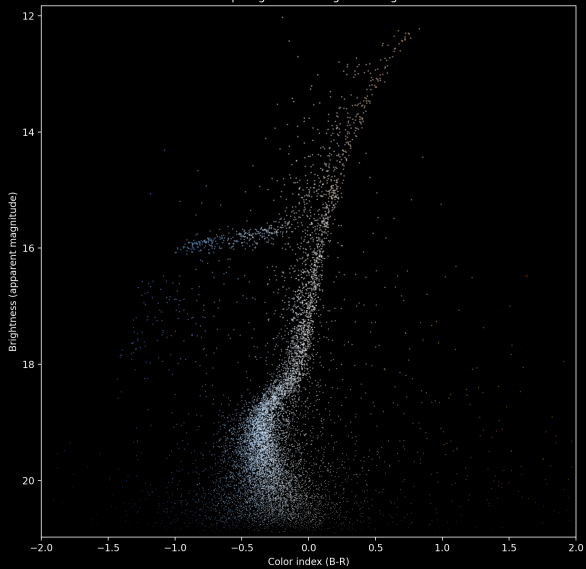
M12 Hertzprung-Russell Diagram using Gaia Data



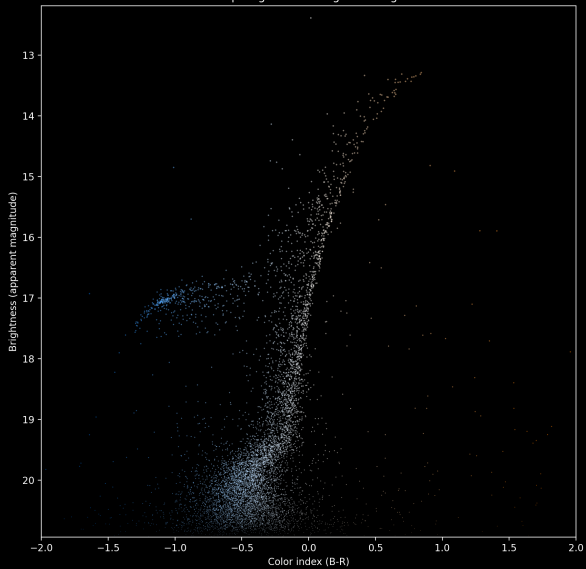
M13 Hertzprung-Russell Diagram using Gaia Data



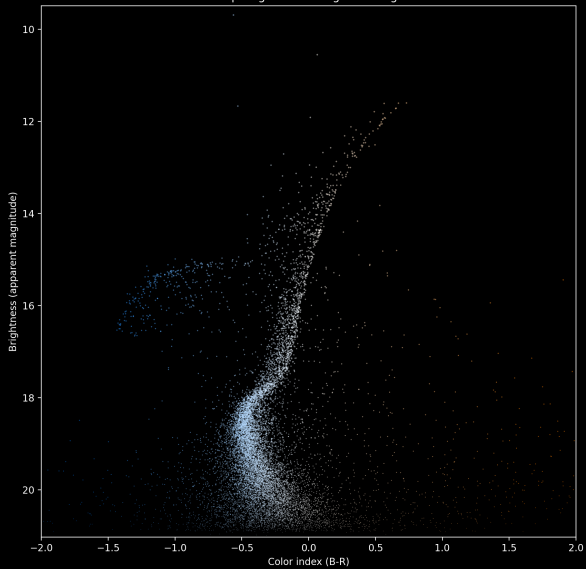
M15 Hertzprung-Russell Diagram using Gaia Data



M53 Hertzsprung-Russell Diagram using Gaia Data



M92 Hertzsprung-Russell Diagram using Gaia Data

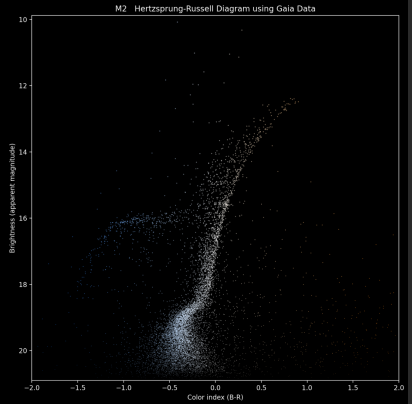


# HR-Diagrams of Globular Clusters – Side-by-Side

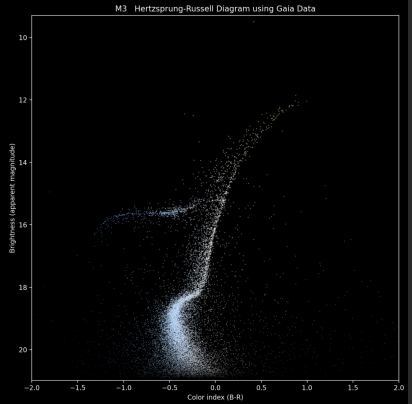
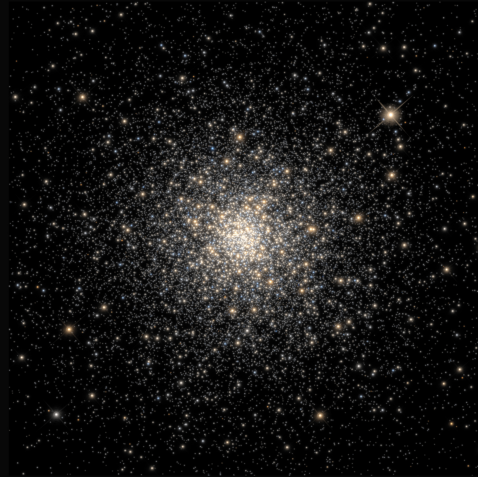
# HR-Diagrams of Globular Clusters – Side-by-Side

Using Gaia Data

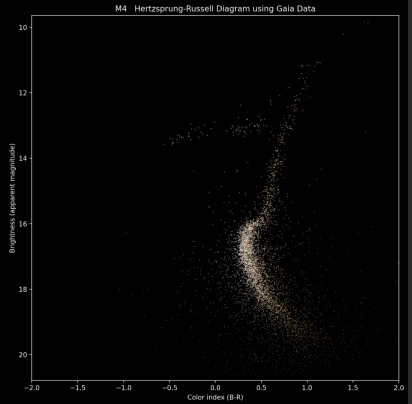
# M2



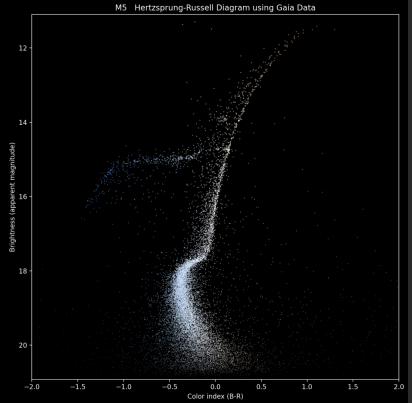
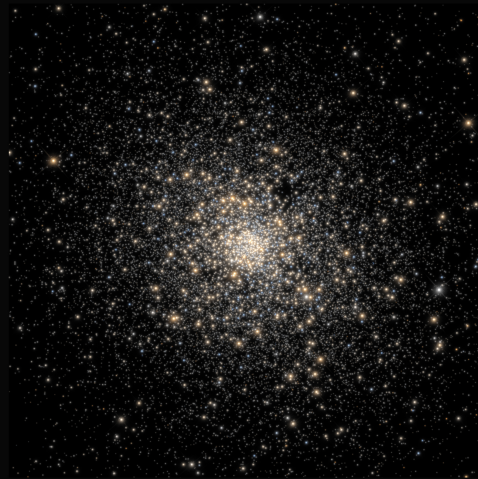
# M3



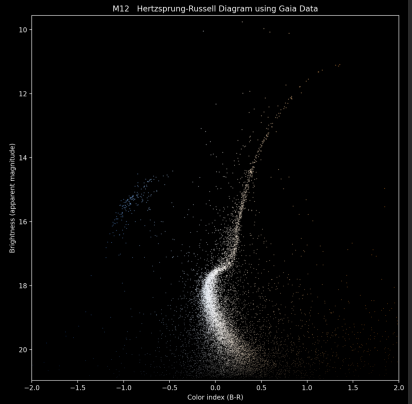
# M4



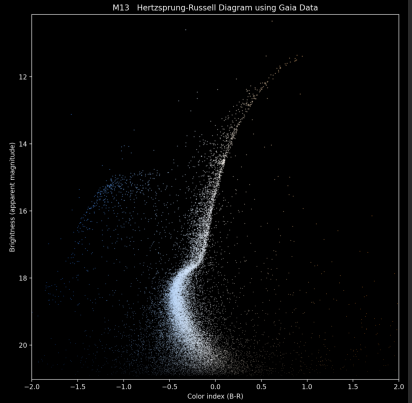
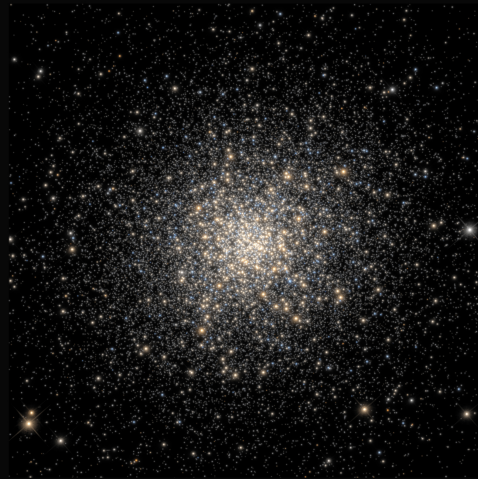
M5



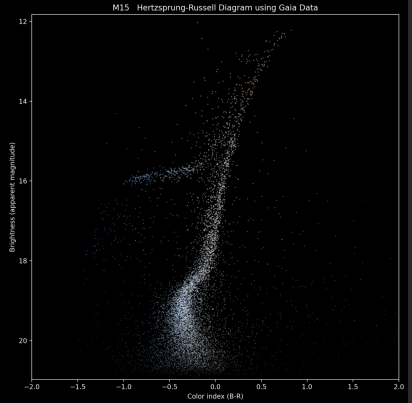
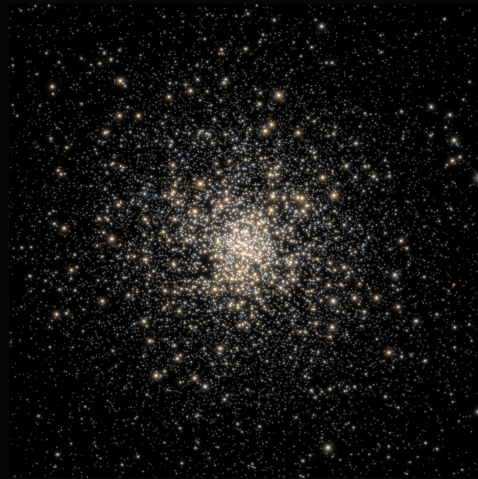
# M12



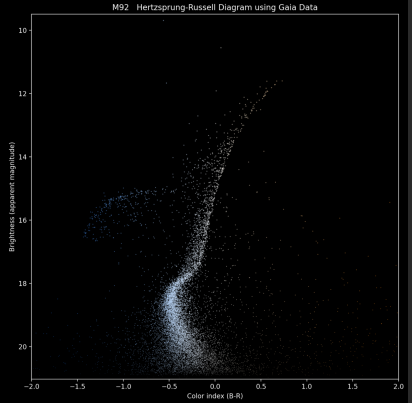
# M13



# M15



# M92

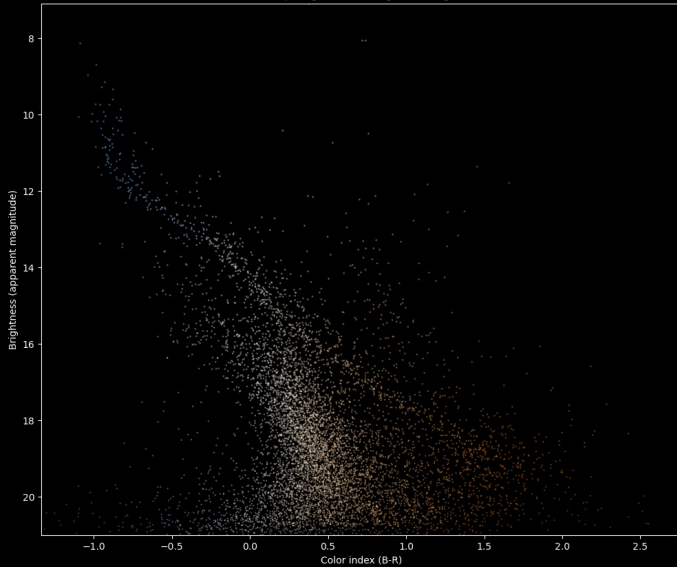


# HR-Diagrams of Open Clusters

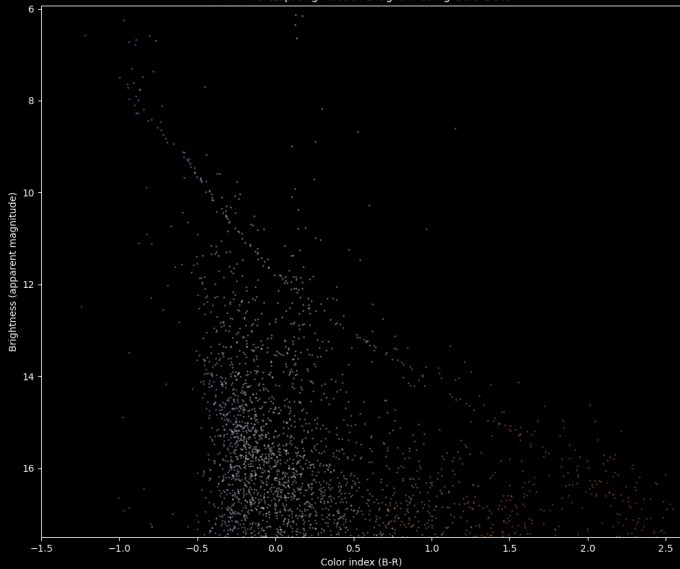
# HR-Diagrams of Open Clusters

Using Gaia Data

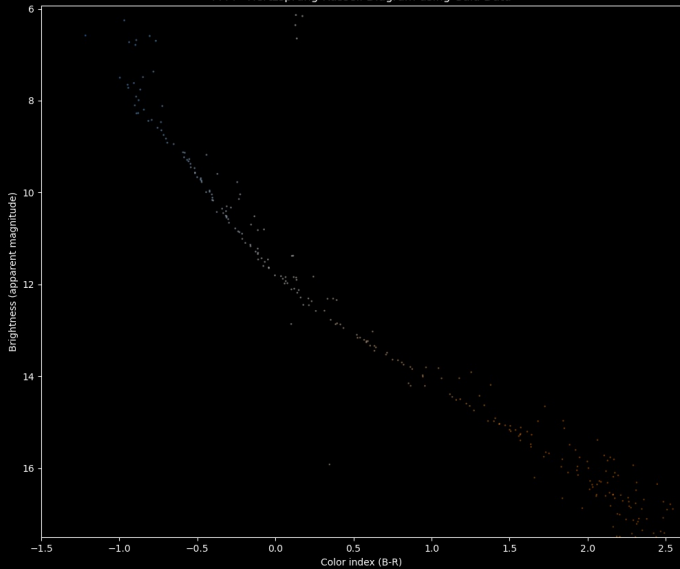
M35 Hertzsprung-Russell Diagram using Gaia Data



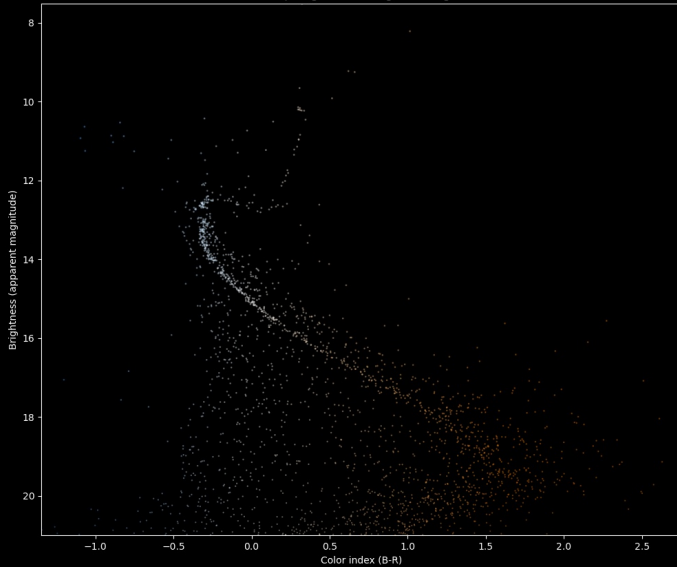
M44 Hertzprung-Russell Diagram using Gaia Data



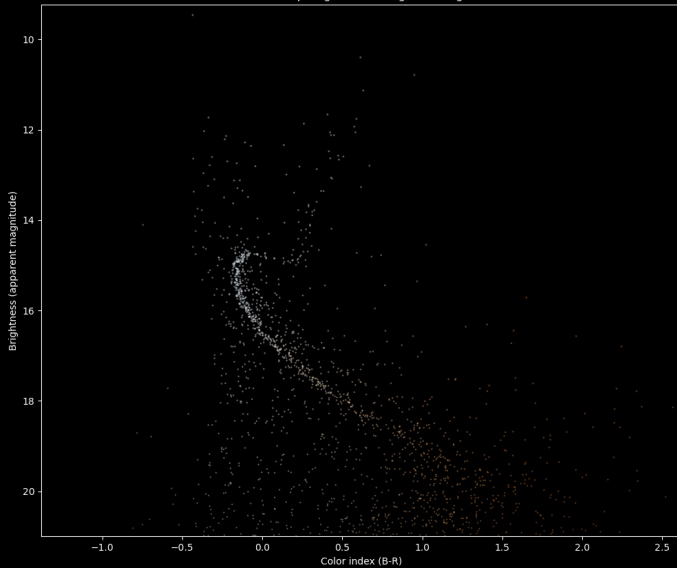
M44 Hertzsprung-Russell Diagram using Gaia Data



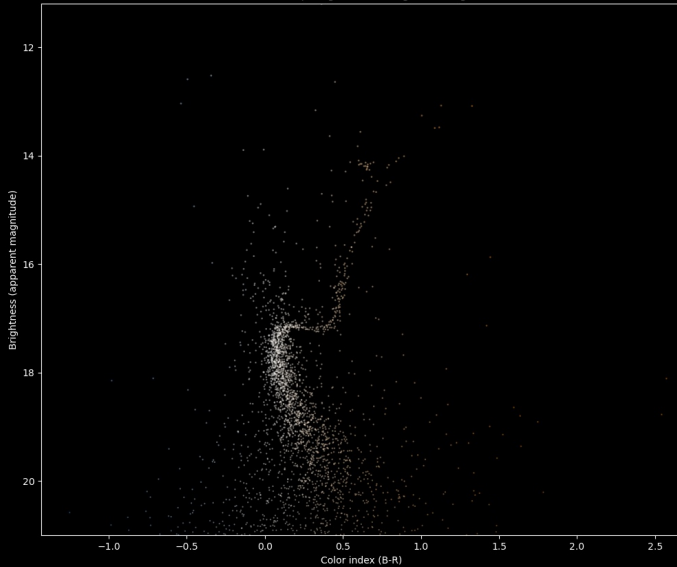
M67 Hertzsprung-Russell Diagram using Gaia Data



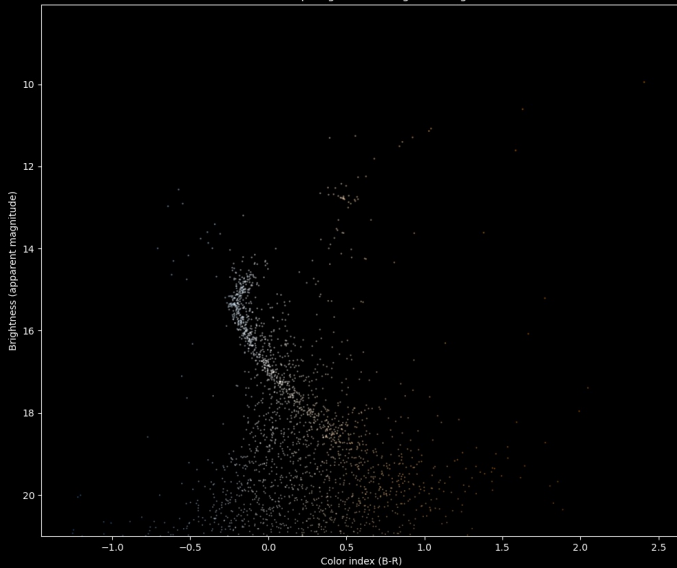
NGC 188 Hertzprung-Russell Diagram using Gaia Data



NGC 6791 Hertzsprung-Russell Diagram using Gaia Data



NGC 6819 Hertzsprung-Russell Diagram using Gaia Data



NGC 7789 Hertzsprung-Russell Diagram using Gaia Data

