WEAVE Galactic Archaeology:
Open Clusters survey

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Open clusters survey: science goals

1. Formation of open clusters

2. Disruption of open clusters

3. OCs as tracers of the Galactic disc and its chemical evolution

4. Star formation, planetary system formation and early stellar evolution

5. Stellar evolution

Open clusters survey: targets

1. Formation of open clusters
    Per OB1, Cygnus region

2. Disruption of open clusters
    Large FoV, OCs of different ages and R_{GC}

3. OCs as tracers of the Galactic disc and its chemical evolution
    Ages > 100 Myr, covering a range of ages and R_{GC}

4. Star formation, planetary system formation and early stellar evolution
    Young & intermediate (<500 Myr), + Hyades, Praesepe
    Li abundance, Fe/H accreation rate, chromospheric activity

5. Stellar evolution
    Same clusters

Open clusters survey: instrument set up

1. High-resolution mode

2. Essential & optimal data set:
   Blue2 & Red gratings: 473-545 & 595-685 nm

   Desirable data set:
   Bue1 grating: 404-465 nm *(n-capture elements)*

3. S/N = 70

4. Essential: ~ 50
   Optimal: ~ +40
   Desirable: in total 140

5. APOGEE, Kepler/K2 fields, Gaia-ESO

Open clusters survey: considerations

1. Calibration
   About 20 Ocs

2. Outer disc survey (anti center)

3. Cygnus survey

4. Special study of compact clusters