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Universiteit Leiden



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Author: Sande, Jesse van de

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Stellingen behorende bij het proefschrift

Dawn of the Red and Dead

Stellar Kinematics of Massive Quiescent Galaxies out to $z = 2$

1. Measurements of dynamical and stellar masses at $z = 2$ are in good agreement (Chapter 2 & 3).
2. The rapid evolution of the mass-size relation is not the result of systematic uncertainties in stellar mass estimates (Chapter 2 & 3).
3. The structural evolution of massive galaxies, as measured by the mass-size, mass-velocity-dispersion, and mass-density relations, suggests that massive high-redshift galaxies are the cores of present-day ellipticals that grow inside-out by minor merging (Chapter 2 & 3).
4. The fundamental plane of massive quiescent galaxies exists out to $z = 2$ (Chapter 4).
5. The dynamical mass-to-light ratio of an early-type galaxy can be estimated from a single color with an accuracy of ~ 0.26 dex (Chapter 5).
6. The combination of the color and mass-to-light ratio can be a powerful tool for constraining the stellar initial mass function (IMF), but variations between different current stellar population synthesis models are comparable to those induced by changing the IMF (Chapter 5).
7. Without a change in the current employment pyramid, the field of astronomy will suffer severe brain drain.
8. Astronomical breakthroughs are often due to the improvement of instruments instead of the enlargement of telescopes.
9. For astronomers, a 40 hour workweek will increase productivity, creativity, and enthusiasm.
10. Survivorship bias leads to well-meant but poor career advice in astronomy.
11. Never read one's own proposal after it has been submitted.
12. Like gravity, love is inversely proportional to the square of the distance. Love rapidly becomes less with increasing distance but at zero love is infinite.
13. The solution for the over-consumption of meat is to make consumers slaughter each animal they eat.
14. Human population control will slow down climate change.
15. Learn to drink before you learn to drive.