

## **Very High Redshift Galaxies: predictions from hierarchical models**

rachel somerville<sup>1</sup>

<sup>1</sup> *Max-Planck-Institut für Astronomie, Heidelberg*

### **Abstract**

Recent surveys have discovered large numbers of galaxies at redshifts 4–6, and even candidates at higher redshifts. In this talk, I will discuss how predictions from semi-analytic hierarchical models can help us address several questions. 1) How well are current models doing at reproducing the observed properties (numbers, colors) of very high redshift galaxies? What are the biggest sources of uncertainty in this modelling? 2) What are the physical properties (e.g. stellar masses, star formation rates, metallicities) of the observed objects? How do the properties of the galaxies that we can observe reflect the 'true' underlying distribution (i.e., how might our observations be biased)? 3) What do the models tell us about how populations seen at different epochs relate to one another, i.e., what are the descendants of the galaxies we see at  $z \sim 6$ ?