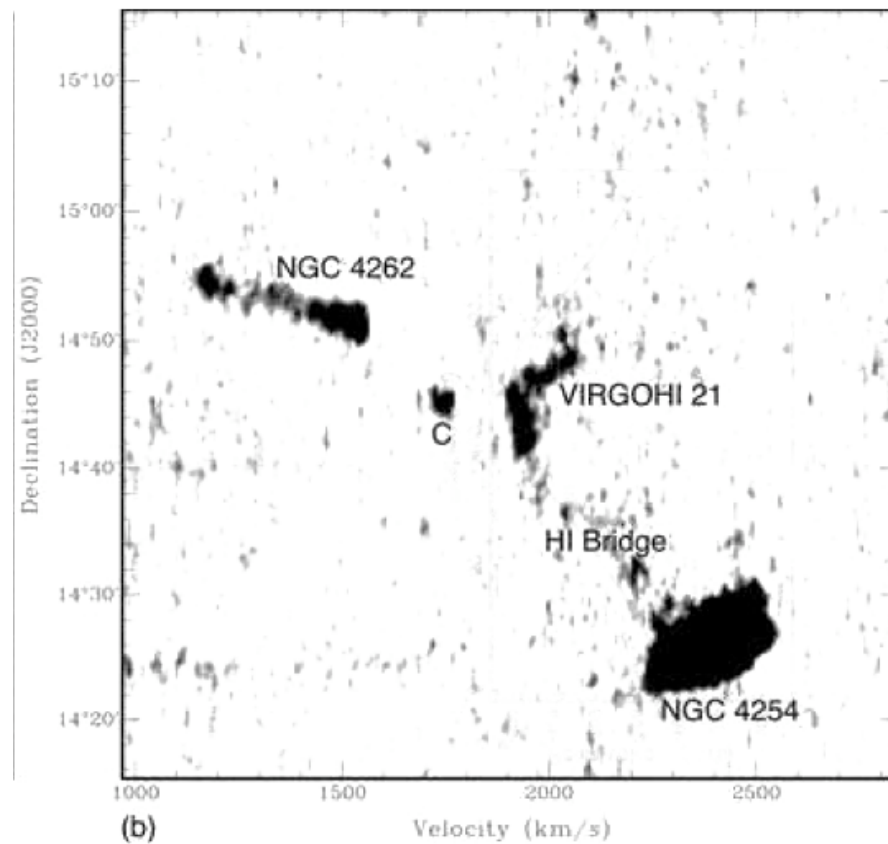
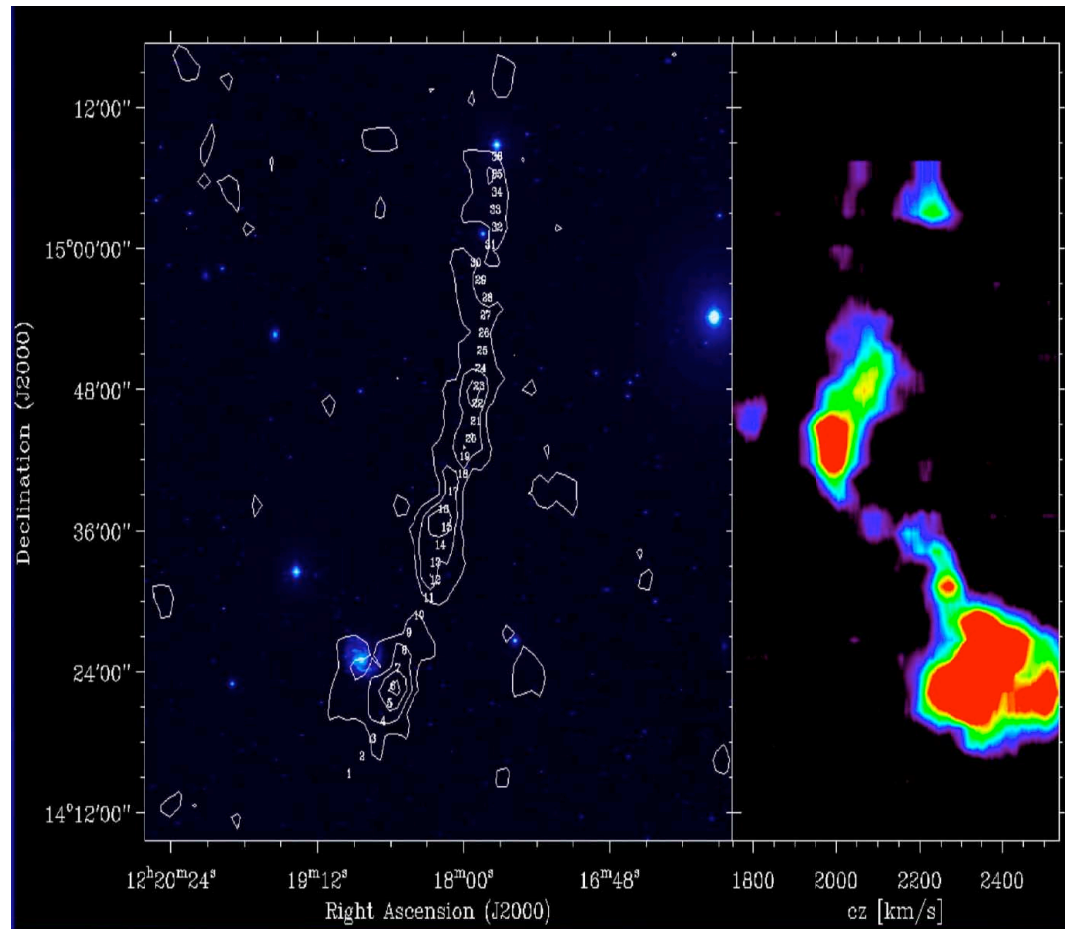


VIRGOHI 21 - comparing observations and models

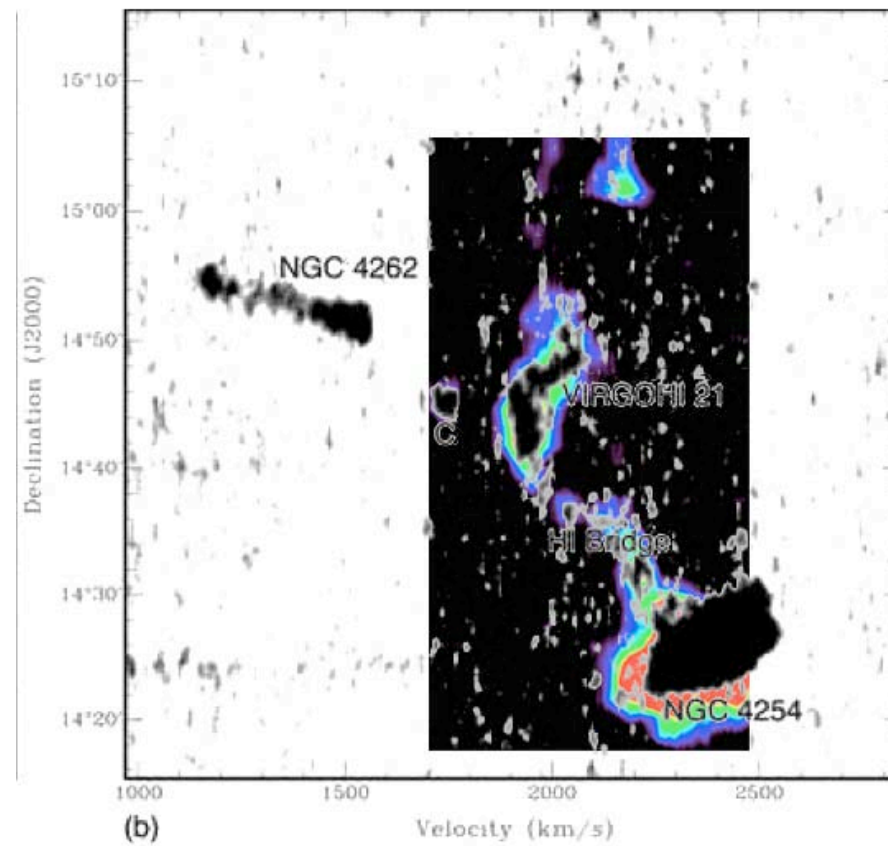
WSRT Observations



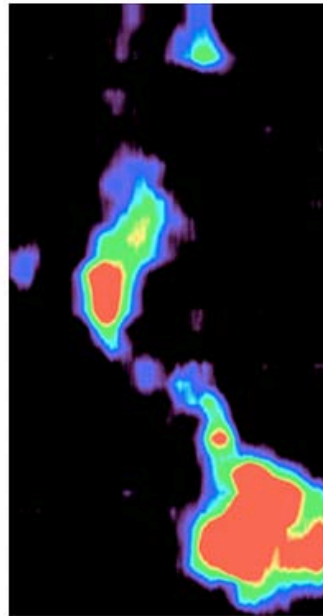
ALFALFA observations



WSRT vs ALFALFA



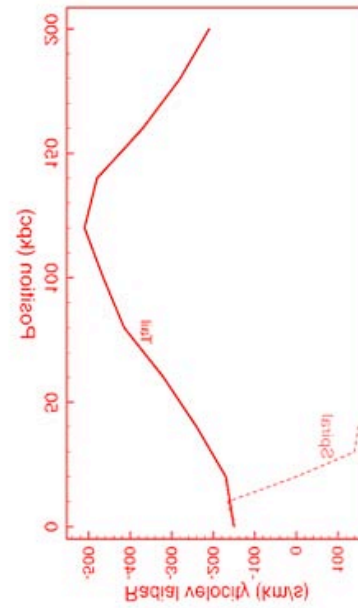
WSRT vs ALFALFA



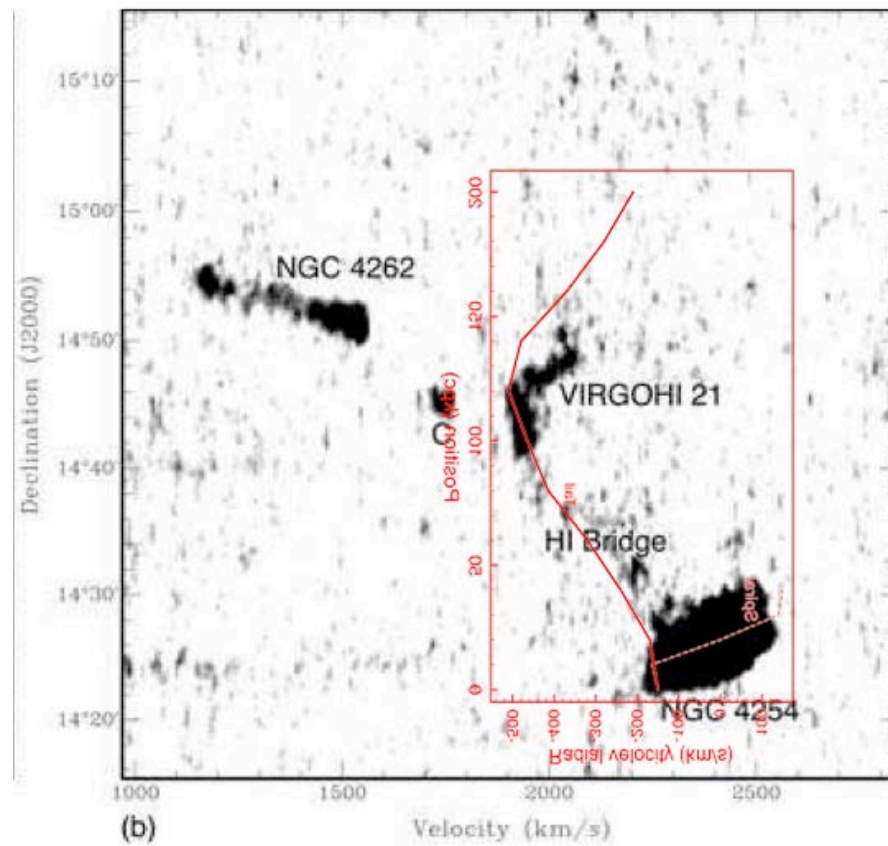
WSRT vs ALFALFA

- Generally good agreement between WSRT and ALFALFA data.
- Higher resolution WSRT data shows a much sharper velocity change - this is real.

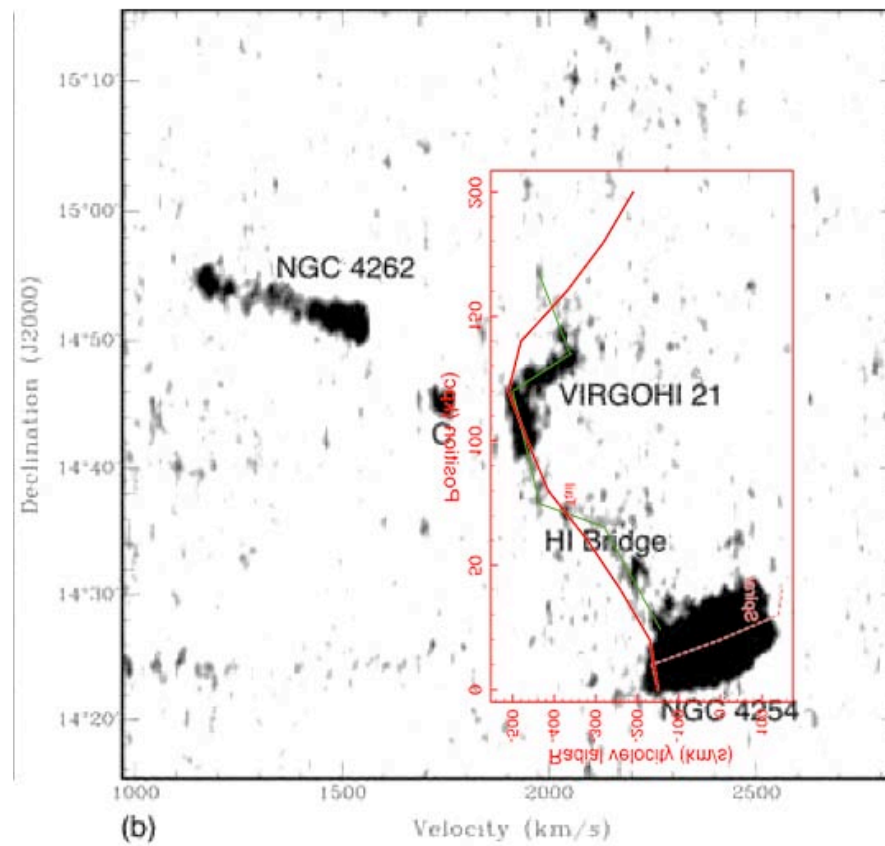
Duc et al. model



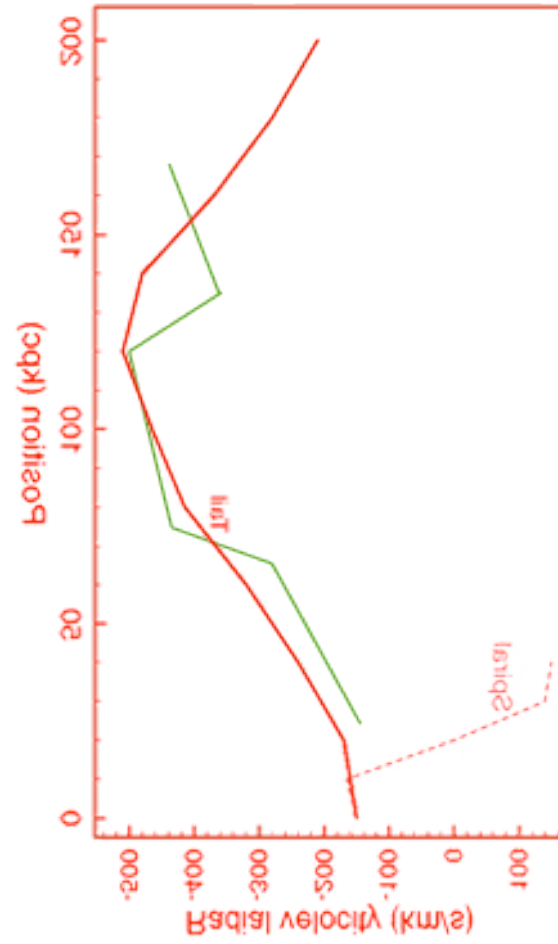
WSRT vs model



WSRT vs model



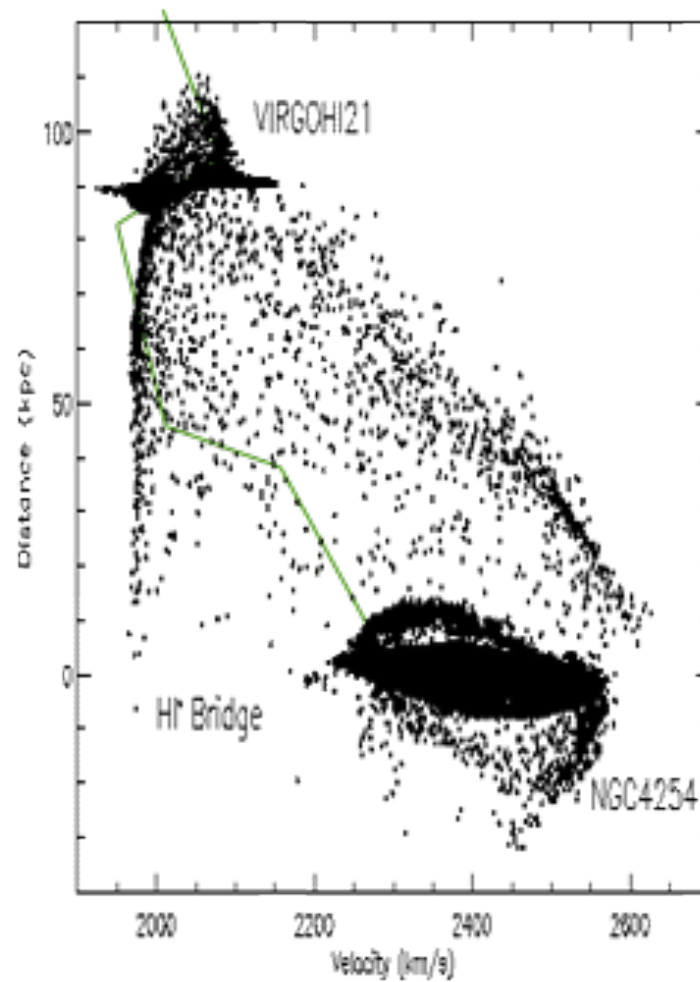
WSRT vs model



WSRT vs model

- The Duc et al. model matches reasonably well the velocity field between VIRGOHI 21 and NGC 4254.
- It does not match the very sharp velocity change.
 - Resolution of model?
 - Influence of ‘Object C’?
 - Proto tidal-dwarf galaxy?
 - Massive dark galaxy?

WSRT vs Dark Galaxy



WSRT vs Dark Galaxy

- Reproduces steep part of the vel field and high col. density section to the south.
- Doesn't match well with the bridge to NGC 4254.
- Very much a work in progress.

My conclusions:

- Neither model can yet match the data well.
- Single tail systems can be made in high speed interactions, but it is unclear if the sharp velocity field can be produced.
- The case is not yet proven either way, but the effort is continuing!