Cluster-Single-star interaction

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work was started with ***Bert Bastijns*** at MODESTa summer school in late July 2005

Hoher List meeting, Nov. 25-27 2005

What we have

- Star cluster of 20-50 stars + 1 single star coming from infinity
- “Head-on” collision
- STARLAB package + some scripts
- Long-range target: study of cluster-field interaction with direct N-body simulation (NBODY6++).

What's happening

- **Field stars are coming from some distance, and are, or are not, captured by the cluster...**
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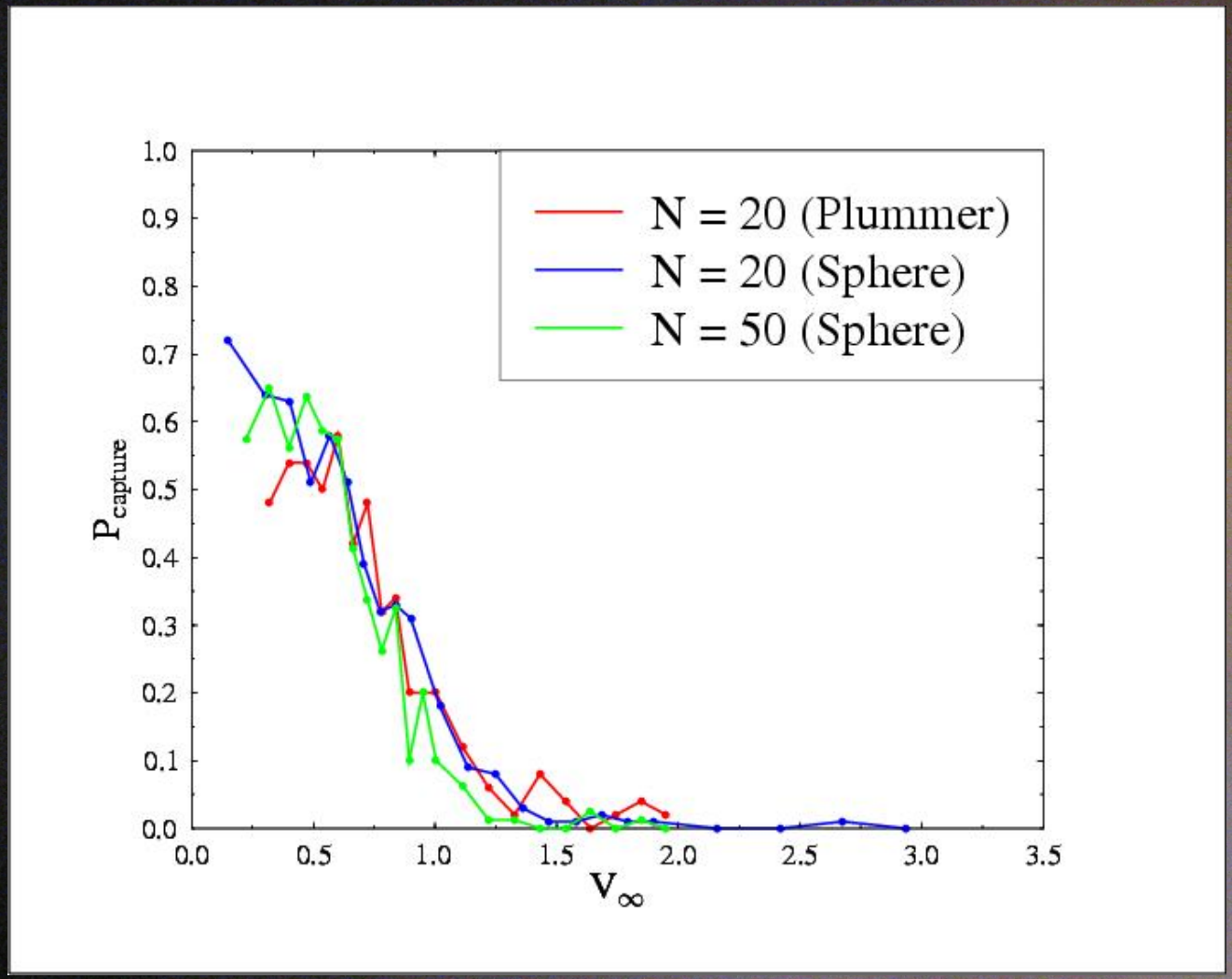
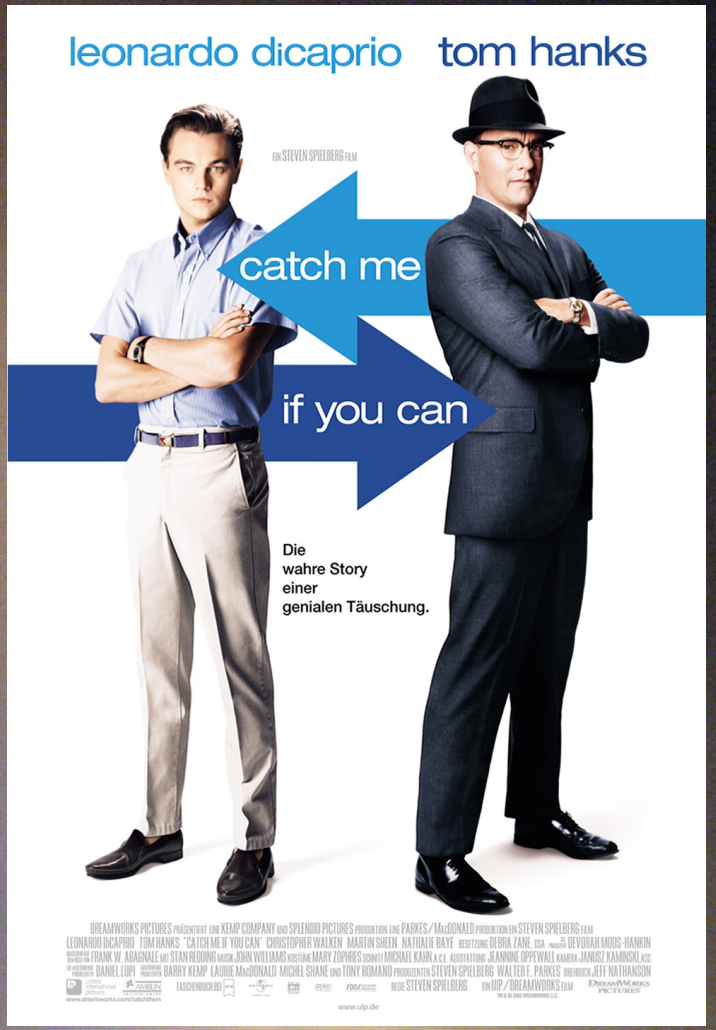
Catch me, if you can.





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What's happened

- Field stars are coming from some distance, and are, or are not, captured by the cluster...
- **If they were not captured, then their velocity was changed**
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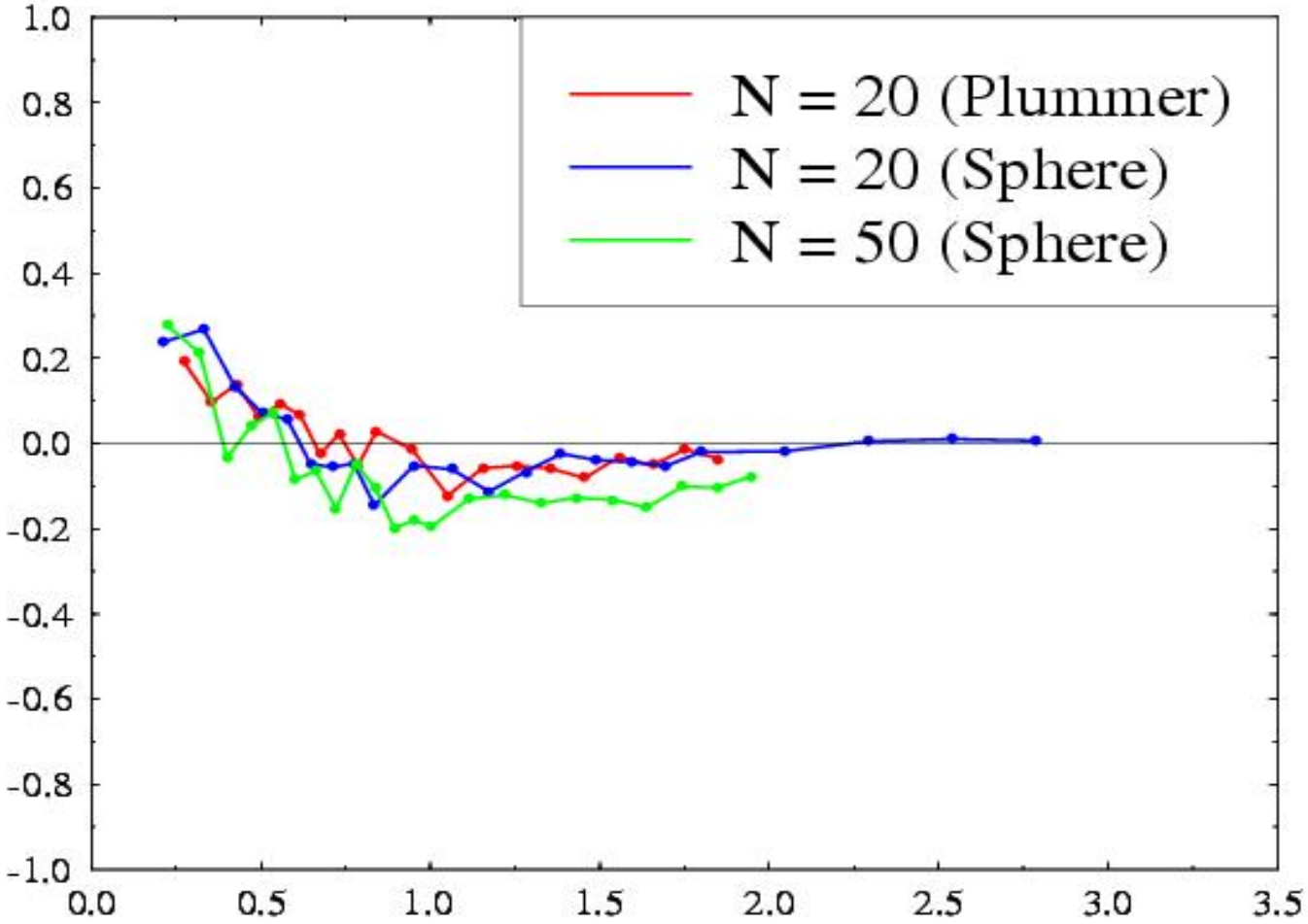
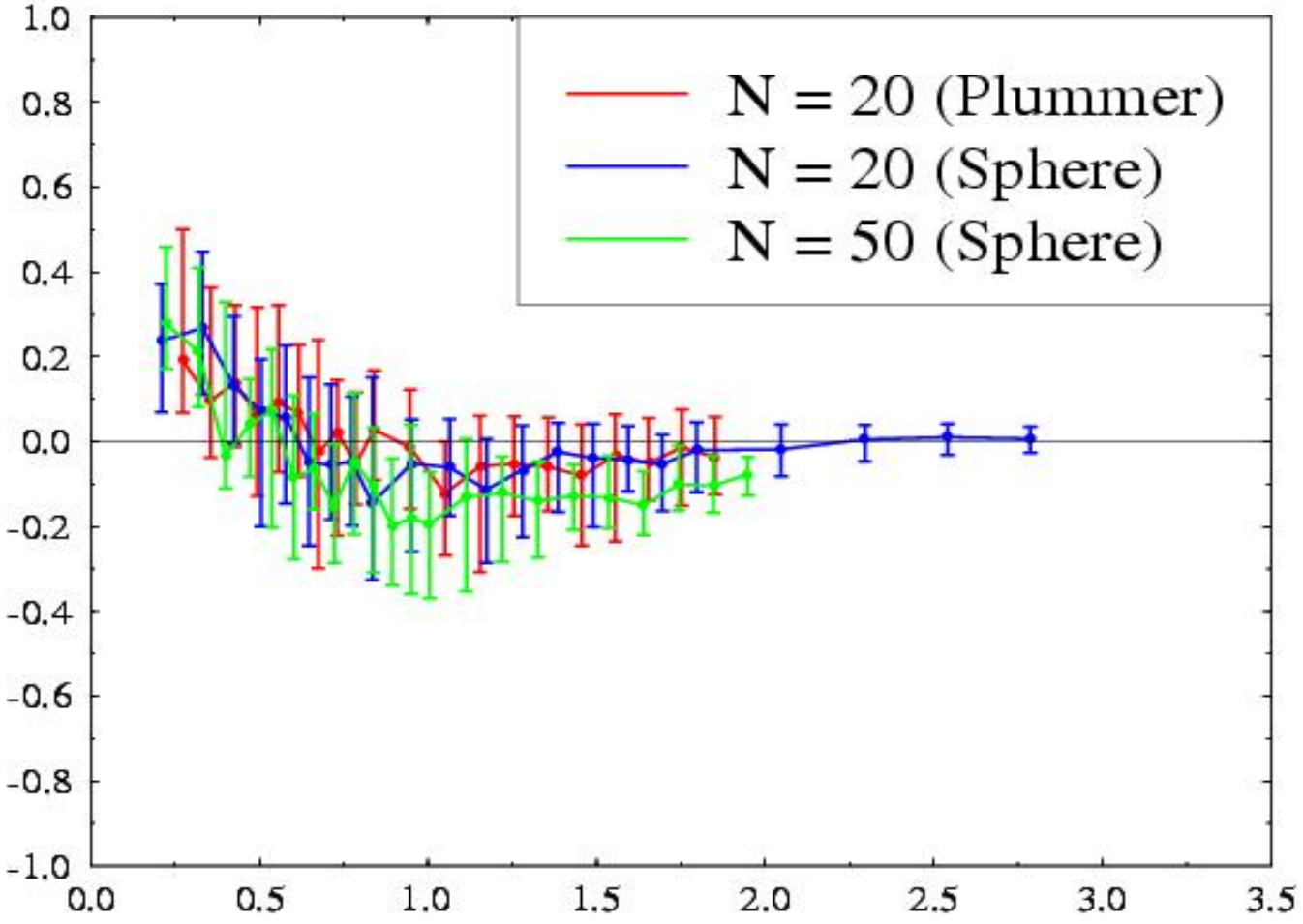
Velocity change



Velocity change: with error bars

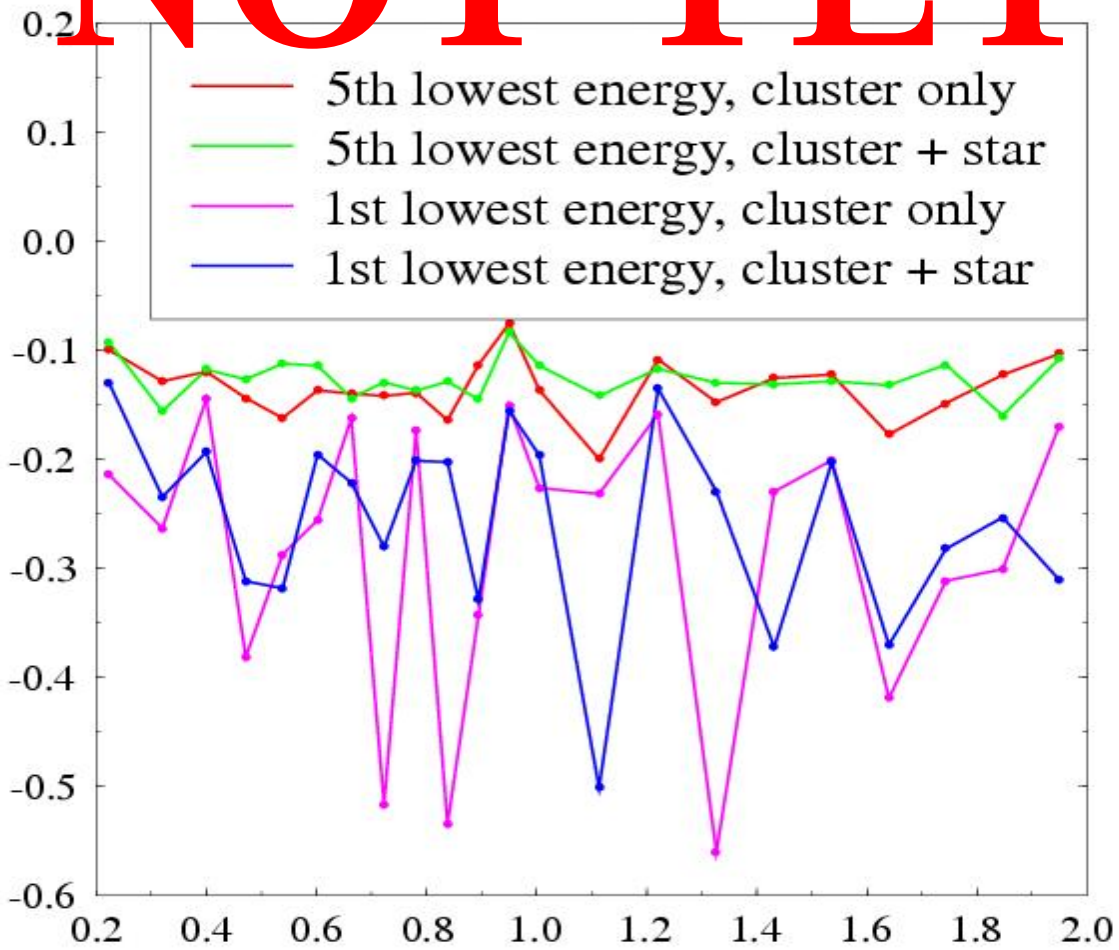


What's happened

- Field stars are coming from some distance, and are, or are not, captured by the cluster...
- If they were not captured, then their velocity was changed
- **Is cluster binary population affected?**

Looking at binaries: can You see the difference?

NOT YET



Future plans

- NBODY6++ full simulation
- One should treat field stars carefully... or not. 8-)
- Binaries inside & outside the cluster
- Moving cluster => “Tidal tail”

Thank You for attention
Questions?