## Progress towards a Bose-Einstein condensate of CaF molecules

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Ultracold molecules have been emerging as a new platform for quantum many body physics due to their strong and tunable dipole-dipole interactions. Recent successes were achieved with associated molecules where ensembles of fermions [1, 2] or bosons [3] reached quantum degeneracy. This has not been achieved for directly laser cooled molecules. A challenge so far has been to achieve high enough number densities for evaporative cooling to function.

We report on our progress towards realising a high-density cloud of CaF molecules in a blue-detuned magnetooptical trap [4, 5, 6, 7, 8]. Afterwards, we plan to load the molecules into an optical dipole trap and perform evaporative cooling in the presence of a resonant electric field which shields the molecules from 2-body collisional loss [9].

## References

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