Important Dates

(undergraduates)

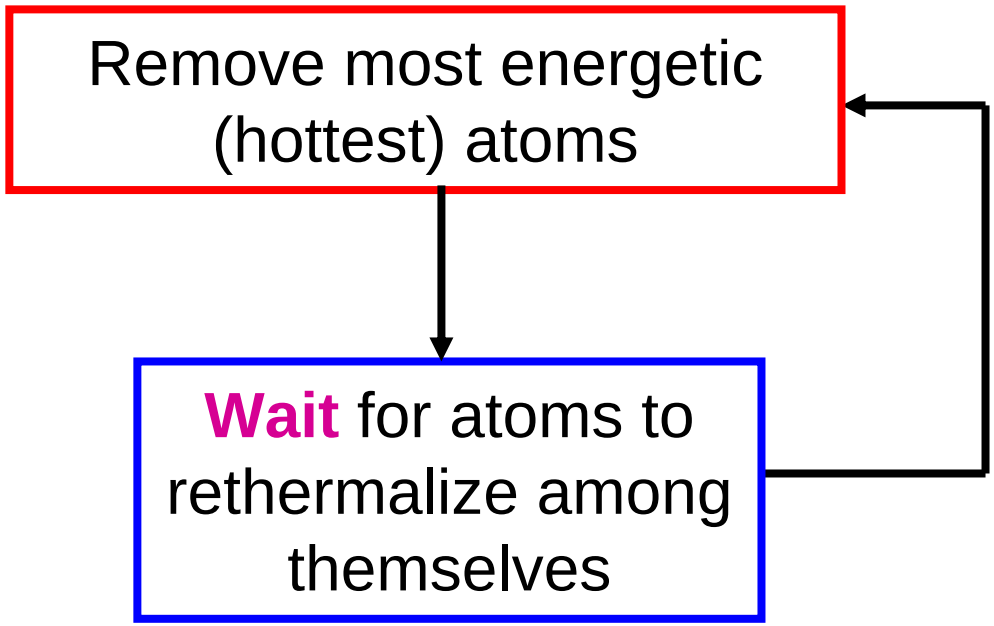
1. Oral presentations on April 21 & 23.

2. Outline + Figures due on Wednesday & Friday next week.

3. First draft of paper due on the day of your oral presentation.

4. Final version of paper due on April 30.

Evaporative Cooling

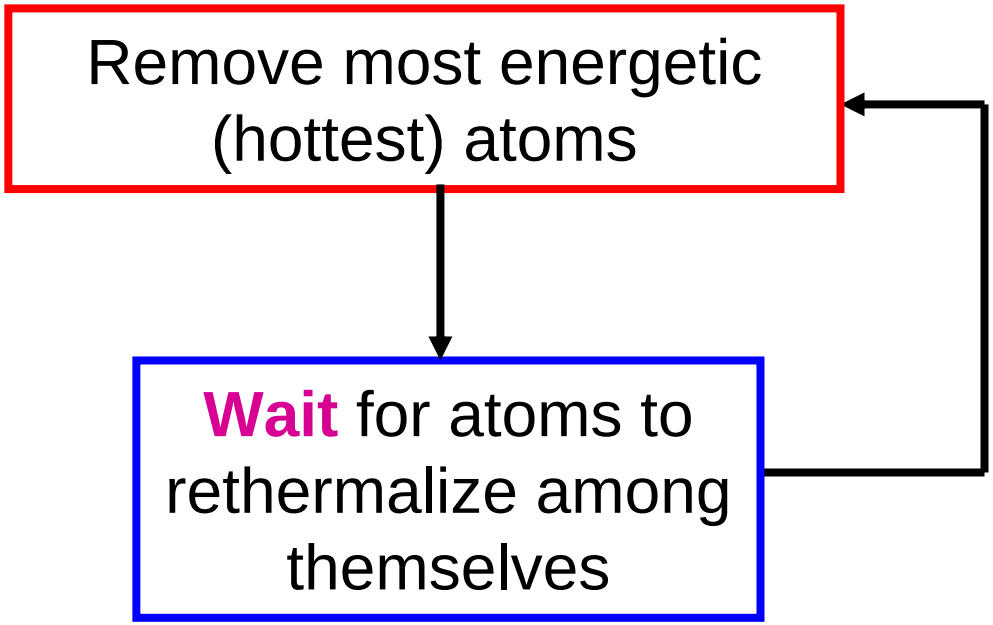


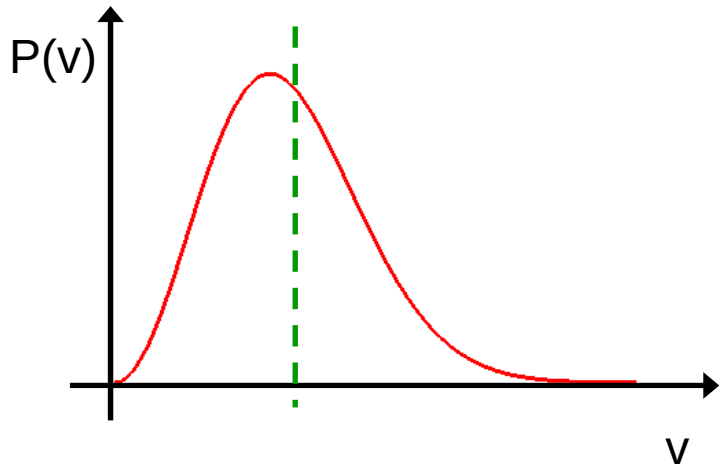
Wait time is given by the elastic collision rate $k_{elastic} = n \sigma v$

Macro-trap: low initial density, evaporation time ~ 10-30 *s*.

Micro-trap: high initial density, **evaporation time ~ 1-2 *s*.**

Evaporative Cooling





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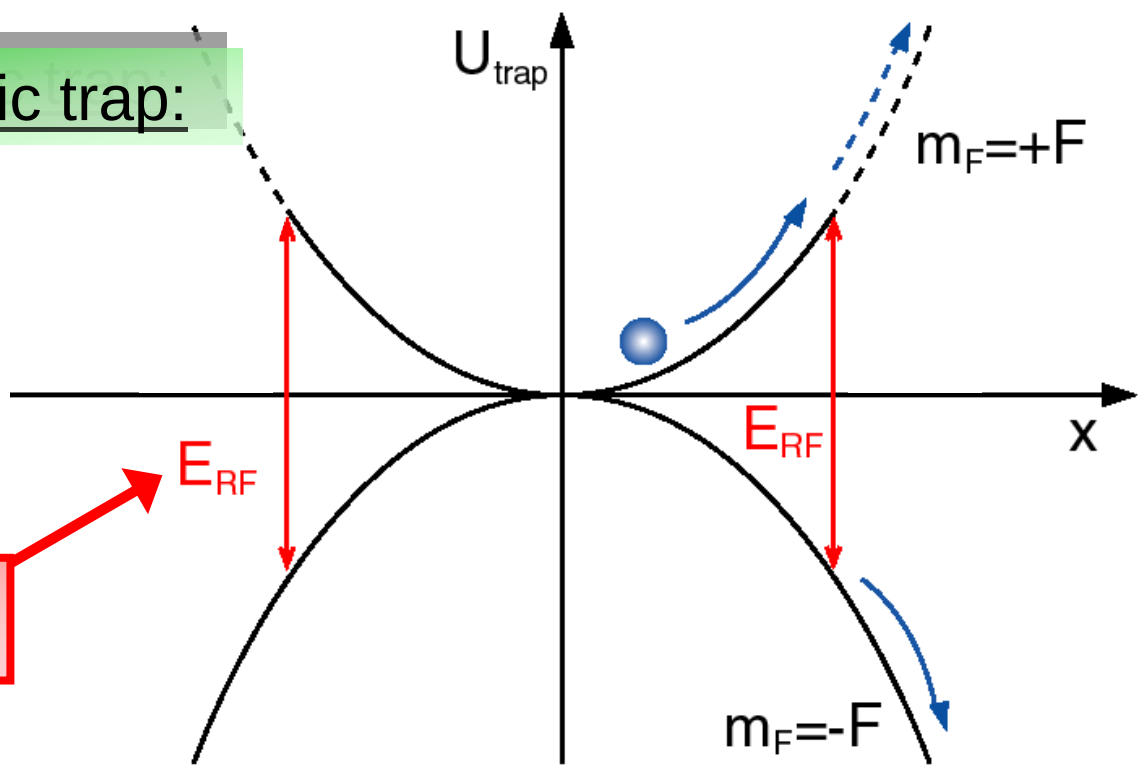
RF Evaporation

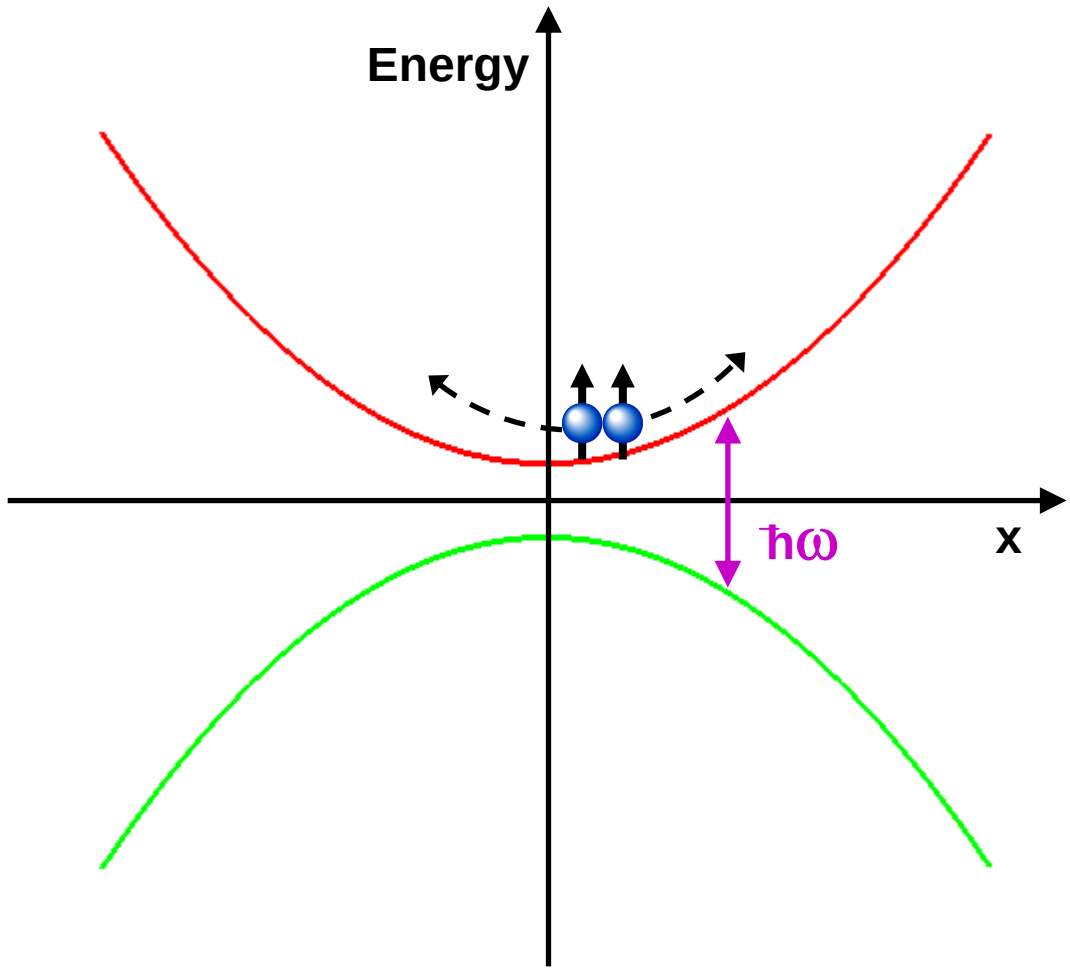
In a harmonic trap:



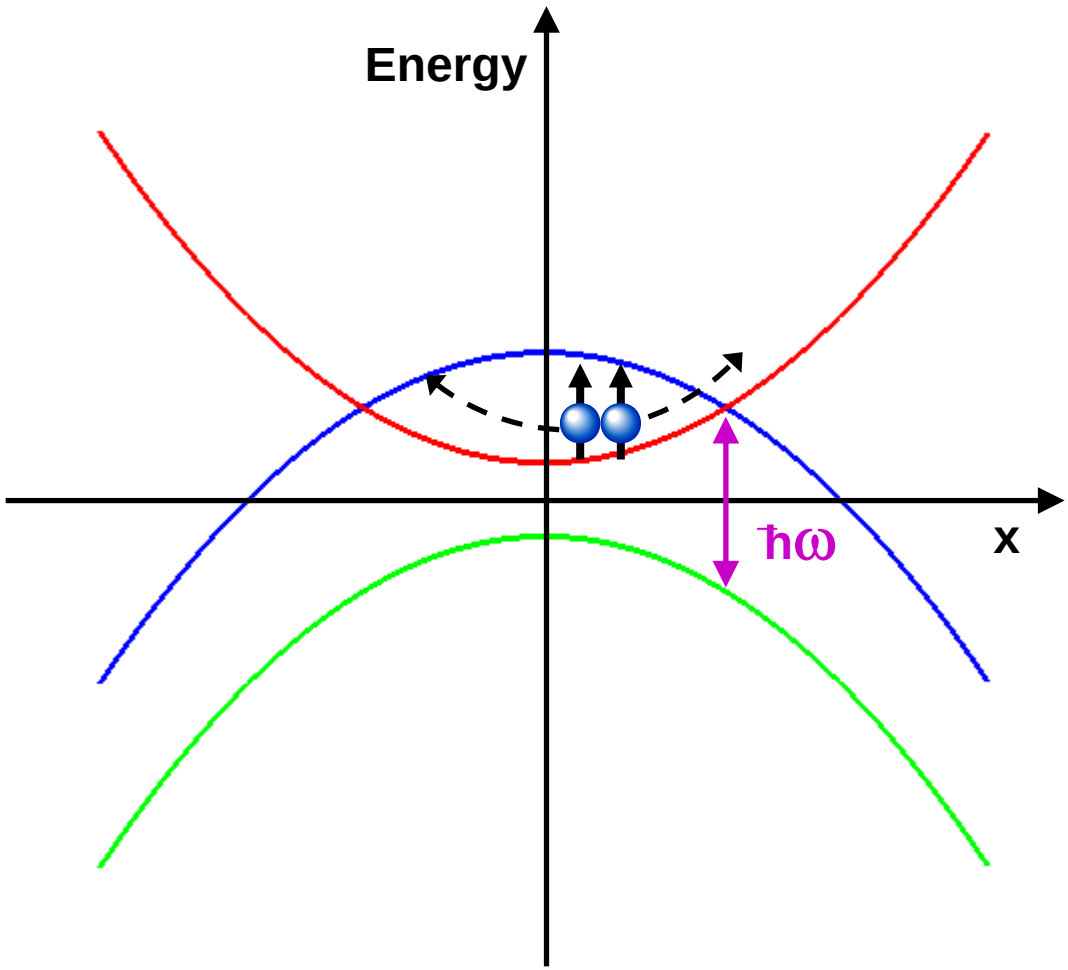
$$E_{RF} = \hbar\omega$$

- **RF frequency** determines energy at which spin flip occurs.
- Sweep RF between 1 MHz and 30 MHz.

RF evaporation: dressed atom picture



RF evaporation: dressed atom picture



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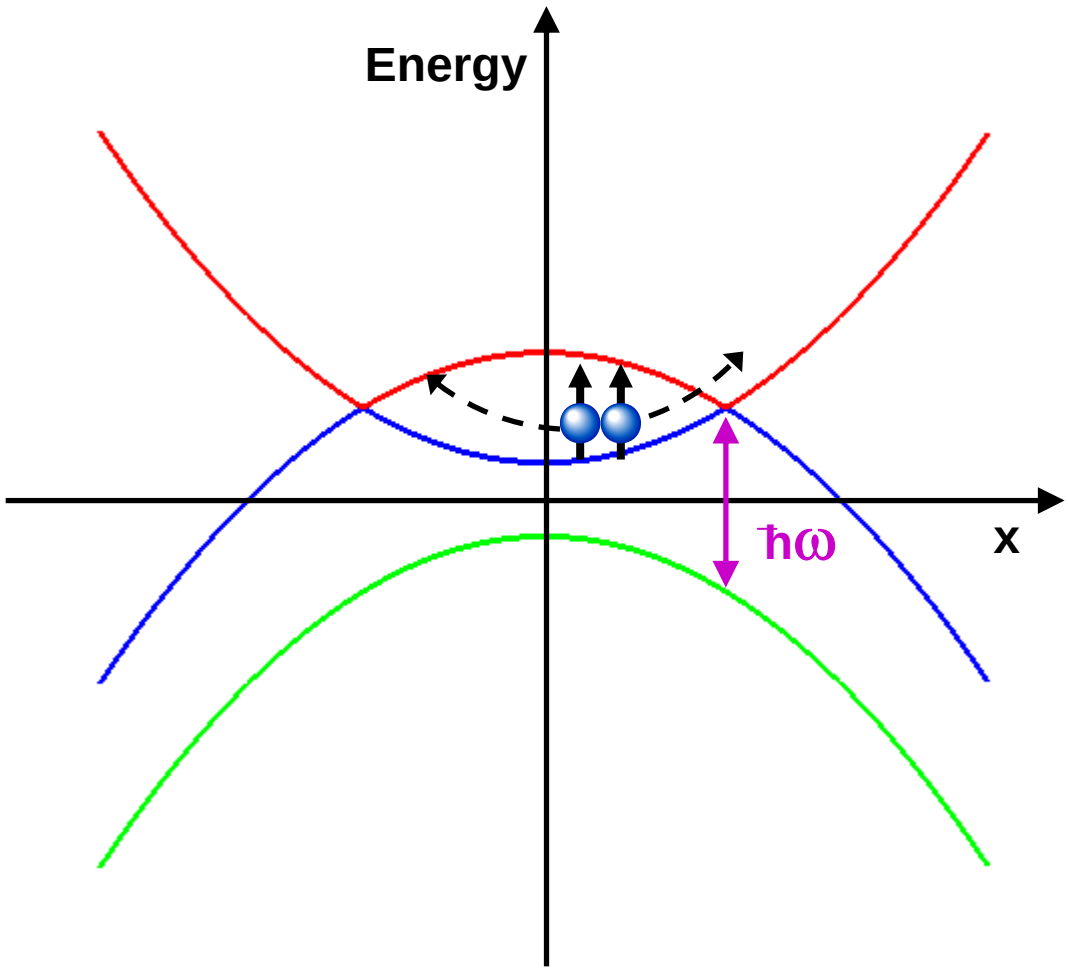

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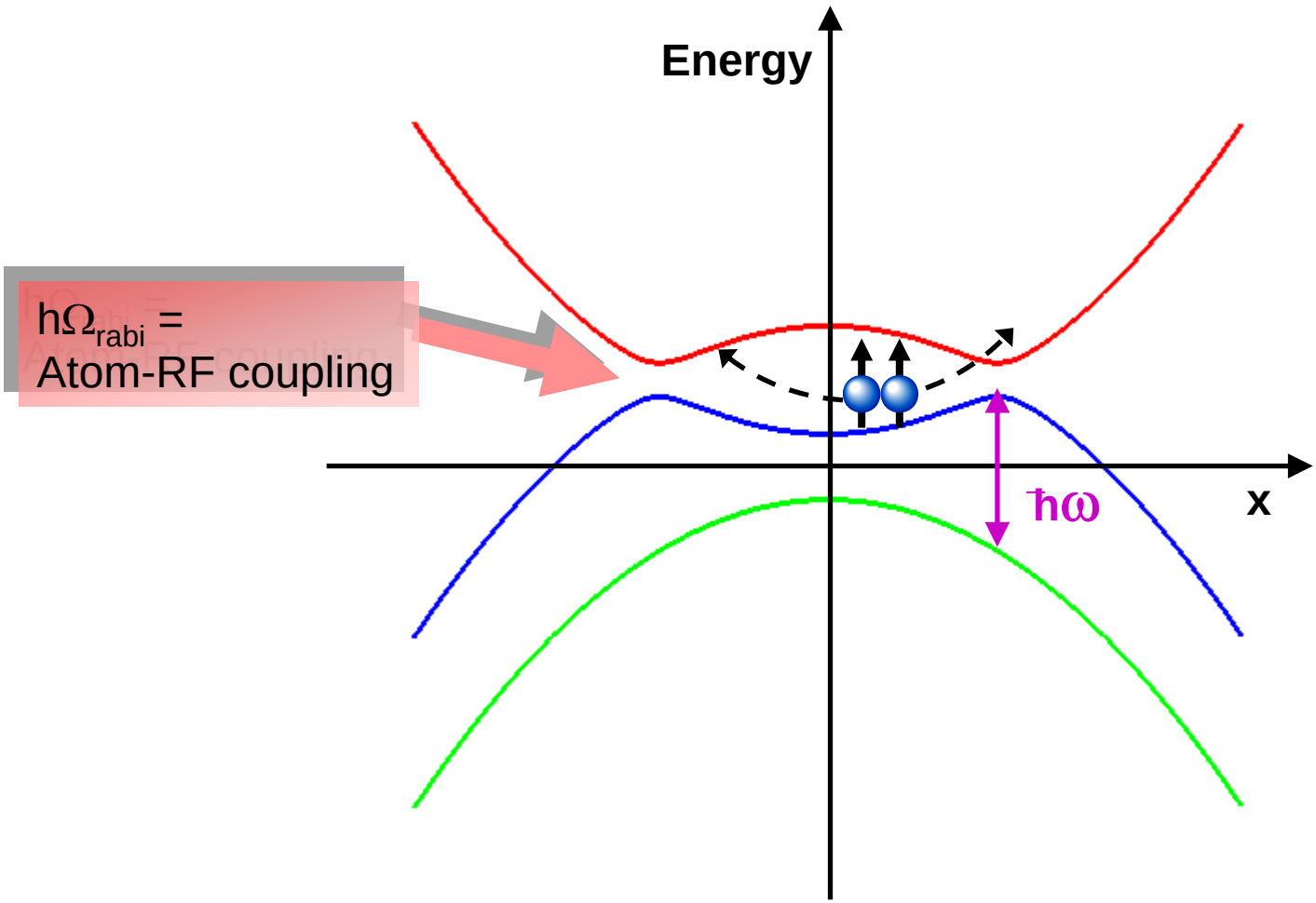
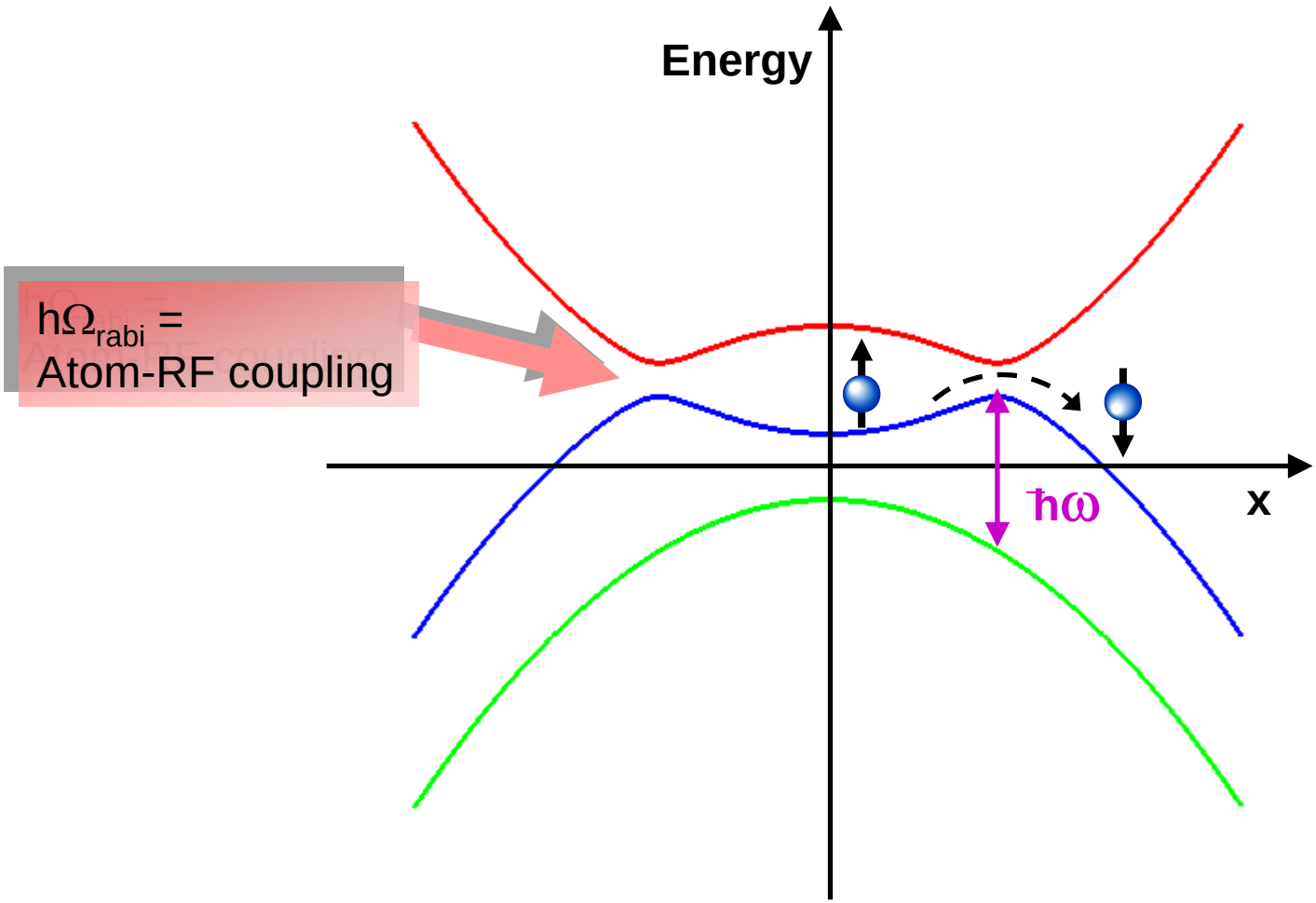
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