

# Attosecond optical technology based on recollision and gating

## Objective:

- Generate single isolated attosecond optical pulses.
- Probe and control electron dynamics in atoms and molecules.
- Spectroscopy and coherence tomography with XUV light.

## Approach:

- Double Optical Gating for generating isolated attosecond pulse with multi-cycle driving lasers.
- Attosecond pump-probe combined with COLTRIMS to study electron dynamics.

## Technical Success:

- Single isolated 148 *as* pulses are generated with 28 fs lasers.
- Spectral Wavefront Optical Reconstruction by Diffraction method is developed for characterizing spatial properties of attosecond beams.

