

## Comb photon and intriguing features in comb laser-atom interaction

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I feel embarrassed when I was asked to give a talk to the quantum optics experts since I am a comb laser or “clock” expert, not “quantum optics”. However, it might be a good chance to sell my unique comb laser to people in the field of “quantum optics”. Therefore, for the first part of my talk, I would like to impress you about the new quantum state of light that some people are now starting to give it a name as “quantum frequency comb”. The second part of my talk will focus on our recent observations on some unexpected features in comb laser-atom interaction, such as, abnormal AC stark shift, quantum interference and spectral line narrowing, and so on. The third part is related to the applications of our compact comb laser by which I wish to draw the “quantum optics” people's attention for possible ideas of future collaboration.