Direct Photons: Questions (Part 1)

1. How does a "graduation tower" work?
2. What is the difference between the following terms: direct photons, prompt photons, isolated photons?
3. What are isolation cuts? Why are they used? Can they be used at low p_T?
4. What can one do to distinguish single photon showers in calorimeters from showers resulting from the overlap of the two decay photons of a neutral pion?
5. What are the motivations for studying direct photons in A+A collisions?
6. What are photons from „jet-plasma interactions"?
7. What is the „double ratio" used in the statistical subtraction method?
8. What is the idea behind the internal conversion method?
9. What are the advantages and disadvantages in using external conversion to measure photons compared to calorimeter measurements?

Direct Photons: Questions (Part II)

1. What does it mean that the direct photon measurements at various energies in p+p are on one universal curve?
2. What is meant by k_T broadening? How does it affect the direct photon spectrum?
3. What are possible reasons for a modification of the direct photon spectrum at high p_T?
4. How big is the direct photon excess in (central) Au+Au collisions at 200 GeV? How is it explained?
5. Why can be assumed that the direct photon excess is a final state effect?
6. What is the exponential slope of the low p_T direct photon excess above the scaled p+p reference? What is the difference between RHIC and the LHC?
7. What is the v_2 of direct photons at RHIC at low p_T? Would you expect this result?
8. What is the solution to the direct photon flow puzzle?