Many (all) the questions have been answered during the Q&A period. Nevertheless, we ask that you provide written answers below so students can come back to read them again. Thanks!

1. What do we expect in the cosmic ray photon spectrum if there is matter anti-matter annihilation? The system is in generally boosted and one would naively expect any feature to be smeared out.

Some of the key features are from p+antiproton→pi+pi-pi0+x, resulting in gamma rays in the O(100 MeV) range. Other features are also expected from e+e- annihilations in the O(MeV) range.
Detailed reviews are *P. Coppi (SSI 2004), G. Steigman (1976)*

2. You said calculation of epsilon-prime is extremely difficult. What is the challenge behind this difficulty? And what is the expectation on when it will be available? Five years, ten years?

Initially the predictions for epsilon-prime suffered from poor knowledge of CKM parameters, the top quark, but more significantly from the uncertainties in the matrix elements, which involves non-perturbative QCD calculations, relying on lattice QCD calculations. The latter is the dominant source of uncertainties at this point. For the time scale of improvements on these calculation, one needs to ask one of the experts in that field, perhaps Amarjit Soni at Brookhaven National Lab.

3. Can you say more about the plots on the bottom left? Why do we look at cos theta_ll?

The experiments operate at the Upsilon(4S) resonance, which is just above the threshold for BB(bar) production, thus the B mesons are produced nearly at rest. The decay products of the B meson are therefore isotropically distributed. Thus the distribution of the cos(theta_ll) from BB system must be flat. Any background from the continuum e+e—->qq(bar) would have distributions with peaking components at +/1. So, the cos theta_ll distribution is useful in showing that the observed excess is due to BB(bar) events.

4. This is generic BSM question: Is research being performed on the relationship of Dark Matter density and CP Violation rates?

I suspect the answer is yes. But for a more accurate and informative answer, I suggest that you ask the question tomorrow during the Jure Zupan's talk.