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. (Page 31) How will be the cancellation of the gauge anomalies?

The SO(10) representations automatically are free of anomalies. In some sense, the fact that we can embed one generation of SM fermions (and the right-handed neutrino, a gauge singlet) into a single irreducible representation of SO(10) explains the apparently miraculous cancellation of anomalies in the SM.

2. (Page 43) LO in agreement with experiments. At the time, did we have any estimate/guess of higher order corrections? If we expected O(1) corrections, should we instead have been concerned that LO agrees?

In terms of the expectation for the higher order corrections, these are highly model-dependent (depending not only on the details of the masses of the SUSY partners and the masses of the GUT scale particles). One can certainly construct scenarios in which these corrections can be significant (and thus various contributions would need to cancel). However, in my understanding of what was typically assumed at that time, these corrections were not expected to be O(1).

3. (Page 42) Besides these couplings, were there discussions on Higgs self-coupling evolution to Planck mass in the GUT investigations ?

Yes, but this would depend in detail on the specific GUT model.

4. (Page 55) Can it happen that baryon number is strictly conserved in the 1st generation (proton is stable modulo some very-high-order loop effects) but is violated in 3rd generation? Similarly to how one needs 3 generations to violate CP symmetry. Does it make sense to search for BNV in decays of B hadrons?

It could indeed be the case, though developing a GUT-type theory that realizes such a mechanism successfully is not obvious. My personal view is that since baryon number violation is essentially ubiquitous in the GUT paradigm, it makes sense to search for baryon number violation in as many ways as possible.

5. (Page 55, 56) Can we rule out operators of higher dimensions? E.g. deltaB=3 or deltaB=deltaL=3 operators? Or baryon decaying into 5 leptons?

Operators of higher dimensions require cutoff scales much lower than the GUT scale in order to give signals large enough to be probed experimentally. Each operator thus already has a certain limit for its associated cutoff scale, and what we can rule out will

depend on the reach of current/forthcoming experiments probing the relevant processes.