advertisement on the availability of the Cornell CESR North Area for a proposal for a small experiment to complement the large CLEO detector being built in the South experimental hall. Steve, Leon, and I discussed proposing an experiment for that area, and it seemed an obvious place to pursue bottom physics. We wrote a proposal, essentially detailing the eventual CUSB experiment, consisting of a 3π-solid-angle non-magnetic tracking system followed by NaI crystals, with lead glass to catch the energy leakage. The forward and backward directions were empty of detectors (except for luminosity monitors). We were asked at the first program-advisory-committee meeting in late 1977 to look for more collaborators, and asked the Franzinis to join. Unfortunately, soon after the experiment was approved, Leon was given an offer he couldn't refuse — directorship of Fermilab. Thus, Steve, the Franzinis, I, and our collaborators built the CUSB detector and discovered the $\Upsilon(4S, 5S)$ (along with CLEO), χ states through photon transitions, and the first evidence for B mesons (via lepton-spectrum cutoff at $\Upsilon(4S)$ mass divided by 4, not by 2, as well as evidence for B to D transitions, not to ρ or π's only). Unfortunately, I, and later Steve, did not get tenure at Columbia; I moved to Fermilab to work on CDF ; Steve moved to Cornell and eventually DESY to work on the machine there.

While many of our E288 collaborators remained at Fermilab (Appel, Yamanouchi, Bruce and Chuck Brown, Kephart, Jöstlein, Ito), others left — Innes (to SLAC, now on BaBar), Kaplan (now at IIT), Hom (in New York City), Sens (now at CNRS), Snyder (now at Gallaudet College).

IX SUMMARY AND OUTLOOK

The discovery of the Upsilon,[3] coming just three years after the November 1974 revolution, continued the string of new quarks, culminating in the recent top discovery at Fermilab (the 3rd-generation lab?) by CDF and D0.

In some respects, the bottom quark has significance way beyond "just another quark." Due to the long lifetime and mixing, CP violation in the B-meson systems becomes the new "Holy Grail" of HEP. Several B factories are being built. A crude estimate would suggest that roughly 1/3 of current HEP experiments are either studying B physics or using B as tags (*e.g.*, the top discovery).

Other aspects of B also increase its significance: it's the heaviest quark that still has a real meson (as opposed to the virtual T meson, which lives too briefly to be a real physical meson); and the b-quark is heavy enough that theoretical calculations for the various Υ and other bottomonium mass levels can be reliably calcuated,...

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[3] I intend soon to put the history of the Upsilon discovery on the Web, with links (hopefully) from the official Fermilab web pages, and with scanned images of crucial memos, pictures of the apparatus and collaboration, links to other B-physics web sites, etc.