



Fig. 1. The three classes of lepton studies carried out by my colleagues and myself at SLAC, set against the construction history of the SLAC linear accelerator and the SPEAR  $e^+e^-$  storage ring.

that by the beginning of the 1960's these concepts were well developed, although there was disagreement on how the leptons should be classified. And by the beginning of the 1960's there were papers on the possibility of the existence of charged leptons more massive than the  $e$  and  $\mu$ , heavy leptons. I remember reading the 1963-1964 papers of Zel'dovich<sup>9</sup> and of Lipmanov.<sup>10</sup> But since the particle generation concept was not yet an axiom of our field, older models of particle relationships were used. For example, if one thought<sup>11</sup> that there might be an electromagnetic excited state  $e^*$  of the  $e$  then the proper search method was

$$e^- + \text{nucleon} \rightarrow e^{-*} + \dots$$

$$e^{-*} \rightarrow e^- + \gamma$$