Time Correlation Studies of Secondary Emission Processes, A. DAINELLI, V. GUIDI, A.M. PILATI, M. POGGI, G. TOMBOLA, B. YANG, INFN-Laboratori Nazionali di Legnaro, Legnaro, Italy - In the framework of the CRYSTAL proposal for the production and studies of ordered ("crystalline") beams, a series of experiments and numerical evaluations where carried out in order to study the time correlation between the ion impinging on a carbon foil and the secondary electrons emitted by the foil itself. The impinging ions and the secondary electrons are detected by a pair of Micro Channel Plate electron multipliers and the signal is processed by a on purpose developed The experimental results are electronic chain. compared with a home developed Monte Carlo numerical code.