



FIG. 4: A polynomial fit of a u-shape (Reoxidized Nitrated-oxide). The experimental curves were extracted from [6]. The inside plot corresponds to the other u-shape densities that are very similar.

$$\overline{\langle n(t)^2 \rangle} \sim A(1 + A) + B(1 + 2A) \log t + B^2 \log^2 t$$

with A and B exactly as reported before.

Looking at the temperature dependence, we must analyze more realistic densities of states. After a detailed scanning of the plots for the densities of states, for the 3 prepared gate oxides (TCE Oxide, Reoxidized Nitrated-oxide, and Nitrated-oxide) found in the reference [6], a fitting by a eighty-degree polynomial, here described by $\hat{\Omega}(E_t) = \sum_{k=0}^8 \beta_k E_t^k$ were performed (see [2] for a more detailed discussion of this part). This excellent fit can be seen in figure 4.

Using these u-shaped densities of states or even their polynomial fit, we can calculate the temperature dependence: