$$E(\rho_{2}(c^{*},c)) \approx \sum_{j=1}^{m} \left[\sum_{r \in I} \frac{p_{r}^{*}}{\mu(\tilde{D}_{r})} \left(\sum_{l \in J(r)} \left[(c_{j}^{*})^{2} \mu(W_{l}) - 2c_{j}^{*} \mu(W_{l}) c_{j}^{(l)} + \int_{W_{l}} c_{j}^{2} dc_{1} dc_{2} \dots dc_{m} \right] \right) \right] =$$

$$\sum_{j=1}^{m} \left[(c_{j}^{*})^{2} \sum_{r \in I} p_{r}^{*} - 2c_{j}^{*} \sum_{r \in I} \frac{p_{r}^{*}}{\mu(\tilde{D}_{r})} \sum_{l \in J(r)} \mu(W_{l}) c_{j}^{(l)} + \sum_{r \in I} \frac{p_{r}^{*}}{\mu(\tilde{D}_{r})} \sum_{l \in J(r)} \int_{W_{l}} c_{j}^{2} dc_{1} dc_{2} \dots dc_{m} \right] =$$

$$\sum_{j=1}^{m} \left[(c_{j}^{*})^{2} - 2c_{j}^{*} \sum_{r \in I} p_{j}^{*} \frac{1}{|J(r)| \prod_{s=1}^{m} h_{s}} \sum_{l \in J(r)} \left(\prod_{s=1}^{m} h_{s} \right) c_{j}^{(l)} + \sum_{r \in I} \frac{p_{r}^{*}}{\mu(\tilde{D}_{r})} \sum_{l \in J(r)} \int_{W_{l}} c_{j}^{2} dc_{1} dc_{2} \dots dc_{m} \right] =$$

$$\sum_{j=1}^{m} \left[(c_{j}^{*})^{2} - 2c_{j}^{*} \sum_{r \in I} p_{j}^{*} \frac{1}{|J(r)| \prod_{s=1}^{m} h_{s}} \sum_{l \in J(r)} \left(\prod_{s=1}^{m} h_{s} \right) c_{j}^{(l)} + \sum_{r \in I} \frac{p_{r}^{*}}{\mu(\tilde{D}_{r})} \sum_{l \in J(r)} \int_{W_{l}} c_{j}^{2} dc_{1} dc_{2} \dots dc_{m} \right] =$$

$$\sum_{j=1}^{m} \left[c_{j}^{*})^{2} - 2c_{j}^{*} \sum_{r \in I} \frac{p_{j}^{*}}{|J(r)|} \sum_{l \in J(r)} \left(\sum_{l \in J(r)} \frac{p_{r}^{*}}{\mu(\tilde{D}_{r})} \sum_{l \in J(r)} \int_{W_{l}} c_{j}^{2} dc_{1} dc_{2} \dots dc_{m} \right] . \tag{0.0.1}$$