

$$S^{\tilde{z}}(K) := \log_{\mathbb{L}} \left( \tilde{z}(K) \bmod \mathcal{H}(r) \right) - \left( \sum_{i=1}^g \left( \begin{array}{c} \bullet \\ \vdots \\ \bullet \end{array} \begin{array}{c} i^+ \\ \vdots \\ i^- \end{array} \right) \right)$$