

|  | Bhaskar [2016]       | Ghadermarzy et al. [2018] | This paper   |
|--|----------------------|---------------------------|--------------|
| Higher-order tensors ( $K \geq 3$ )        | <b>✗</b>             | <b>✓</b>                  | <b>✓</b>     |
| Multi-level categories ( $L \geq 3$ )      | <b>✓</b>             | <b>✗</b>                  | <b>✓</b>     |
| Error rate for tensor denoising            | $d^{-1}$ for $K = 2$ | $d^{-(K-1)/2}$            | $d^{-(K-1)}$ |
| Optimality guarantee under low-rank models | unknown              | <b>✗</b>                  | <b>✓</b>     |
| Sample complexity for tensor completion    | $d^K$                | $Kd$                      | $Kd$         |