

Choosing the Right Decoding Method

START: What kind of task?

Need exact/factual?

Translation
Q&A
Summarization

→ **BEAM SEARCH**
(width=3-5)

Or $\text{Temp}=0.3-0.5$
for consistency

Need creative/diverse?

Creative Writing
Dialogue
Storytelling

Short responses
(low repetition risk) Long generation?
(repetition risk)

→ **NUCLEUS**
(p=0.9-0.95)

→ **CONTRASTIVE**
($\alpha=0.5-0.7$)

Special: Code Generation

→ Greedy or Beam (correctness critical)

→ *Then verify syntax/semantics*