The Power of Forgetting

Adaptive Playout Policies for MCTS in Go

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Go
MCTS in Go
Problem of Narrow Sequences
Local Replies
The Last-Good-Reply Policy
The LGR-2 Policy

playout
A B C D E F G black wins
A E G F B C white wins

black replies
A B → C
C D → E
E F → G

white replies
A B → C
D E → G
C D → E
G F → B
E F → G
The LGRF Policy

Playout:

A B C D E F G (black wins)

A D E G F B C (white wins)

Black Replies:

B → C
D → E
F → G

White Replies:

A → D
E → G
F → B
Some Results
I also experimented with...

- Replies in each node
- Replies to moves in particular patterns
- Follow-ups to own moves
  - Indirect replies
  - Multiple replies
  - Decaying replies
  - Bad replies
- Ignoring captured stones
- Last Good Moves
  - Local replies
- Replies with scores
  - ...
- ...