



Quality Assurance by Comparison: Is the MCS Result a Good Result?

The Model

- A full PSA for the Loss of Offsite Power of a Japanese nuclear power plant
- 181 sequences (171 lead to a Core Damage)
- Up to 1128 gates and 1745 basic events per sequence
- More details in (Epstein & Rauzy 04)

→ We Compared the BDD Solution to the MCS Solution



MCS (with truncation) vs. BDD (with success branches)

MCS Solution < BDD Solution	number of sequences
less than 10%	8
between 10% and 50%	19
between 50% and 100%	9
between 100% and 310%	15
total	53/181

MCS Solution > BDD Solution	number of sequences
less than 10%	15
between 10% and 100%	9
100% up to a factor 10	44
a factor 10 up to 96.83	60
total	128/181