

1. **Title:** LTE Fault Model Database

2. **Source:**

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- Available Online: <http://webpersonal.uma.es/de/rbarco/>

3. **Citation Request:**

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4. **Attributes:** [Retainability, HOSR, RSRP, RSRQ, SINR, Throughput, Distance, Fault Cause]

- RSRP in dBm
- RSRQ in dB
- SINR in dB
- Throughput in kbps
- Distance in km

5. **Fault Cause:**

Fault Cause	Label
Antenna Downtilt	1
Coverage Hole	2
Inter-System Interference	3
Too Late HO	4
Overshoot Coverage	5
Weak Coverage	6
Normal	7

6. **Training database** 'db_fm_training.txt'

- Number of Instances: 550
- Class Distribution:

Fault Cause	Distribution [%]
Antenna Downtilt	5.09
Coverage Hole	2.55
Inter-System Interference	2.73
Too Late HO	6.19
Overshoot Coverage	5.82
Weak Coverage	5.09
Normal	72.55

7. Validation database 'db_fm_validation.txt'

- Number of Instances: 4009
- Class Distribution:

Fault Cause	Distribution
Antenna Downtilt	5.29
Coverage Hole	2.57
Inter-System Interference	2.64
Too Late HO	6.19
Overshoot Coverage	5.09
Weak Coverage	5.19
Normal	72.94

8. Thresholds

KPI	U	Th₁	Th₂
Retainability	0.985	0.973	0.996
HOSR	0.944	0.899	0.989
RSRP 95 pctl	-74.6	-76.9	-72.4
RSRQ 5 pctl	-18.5	-18.8	-18.2
SINR 95 pctl	13.8	13	14.5
Average Throughput	103.94	96.2	111.67
Distance 95 pctl	0.859	0.838	0.880