

```
scientific_debt_keywords = [
    r"\bassumption\b",
    r"\bapproximate\b",
    r"\bapproximation\b",
    r"\bsimplified\b",
    r"\bsimplification\b",
    r"\bnot exact\b",
    r"\bnot strictly accurate\b",
    r"\bnot accurate\b",
    r"\bstandard assumption\b",
    r"\bidealized\b",
    r"\bheuristic\b",
    r"\buncertainty\b",
    r"\bpotential error\b",
    r"\bmight be incorrect\b",
    r"\bmight not be valid\b",
    r"\bknown limitation\b",
    r"\btrade[- ]?off\b",
    r"\baccuracy loss\b",
    r"\bnumerical instability\b",
    r"\brounding error\b",
    r"\bprecision error\b",
    r"\bfloating[- ]?point error\b",
    r"\btolerance\b",
    r"\bvalidation needed\b",
    r"\btodo[:\s]*verify\b",
    r"\btodo[:\s]*check scientific validity\b",
    r"\bfuture work needed\b",
    r"\bcaveat\b",
    r"\bempirical\b",
    r"\bbest effort\b",
    r"\bmodel limitation\b",
    r"\bparameter tuning needed\b",
    r"\bconvergence issues?\b",
    r"\bphysical assumption\b",
    r"\bedge case not handled\b",
    r"\bmissing edge case\b",
    r"\bnot scientifically rigorous\b",
    r"\bcorrectness not guaranteed\b",
    r"\breliability issues\b",
    r"\btheoretical assumption\b",
    r"\black of experimental validation\b",
    r"\btodo[:\s]*improve scientific model\b",
    r"\bassume\b",
```

```
r"\btodo\b",
r"\bhack\b",
r"\bincomplete scientific\b",
r"\breplace with better model\b",
r"\bsuboptimal scientific\b",
r"\binaccuracies\b",
r"\bsimplify\b",
r"\bconvergence issue\b",
r"\bprecision\b",
r"\bscientific accuracy\b"
```

]