Arcane Information, Solving Relations, and Church Censorship

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Abstract. Church-Turing Thesis fails for problems that allow multiple answers: many easily solvable problems allow only non-recursive solutions. Its corrected version is: Physical and Mathematical Sequences have Little Common Information. This requires extending Kolmogorov's concept of mutual information to infinite strings. This is tricky; the talk will survey these and other related issues. Related Information can found at: <http://arxiv.org/abs/cs.CC/0203029>.