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Andrey Frolov, Iskander Kalimullin and Russell Miller* (Russell.Miller@qc.cuny.edu),
Mathematics Department, Queens College – CUNY, 65-30 Kissena Blvd., Flushing, NY. *Spectra of Algebraic Fields.*

The spectrum of a structure is the set of all Turing degrees of presentations of that structure. We investigate the possible spectra of a field F algebraic over its prime field. In general these turn out to be of the form $\{\mathbf{d} : H \text{ is c.e. in } \mathbf{d}\}$, for a specific subset H of ω which depends on F . Conversely, every set of this form, for any H , is the spectrum of some normal algebraic field. From the theory of enumeration degrees, it follows that every such field must have a jump degree. Another corollary is the known result that there is a normal algebraic field extension of the rationals with no least degree in its spectrum. (Received August 15, 2008)