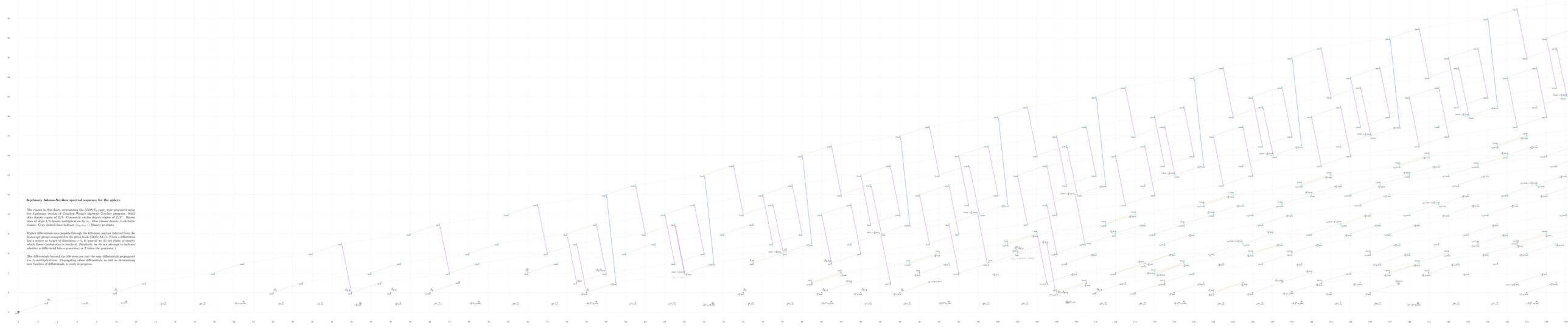
3-primary Adams-Novikov spectral sequence for the sphere
The classes in this chart, representing the ANSS E_2 page, were generated using the 3-primary version of Guozhen Wang's algebraic Novikov program. Solid dots denote copies of $\mathbb{Z}/3$. Concentric circles denote copies of $\mathbb{Z}/3^n$. Brown lines of slope 1/3 denote multiplication by α_1. Blue classes denote $\beta_1\alpha$-divisible classes. Gray dashed lines indicate $(\alpha_1, \alpha\beta_1, \gamma)$ Massey products.
Higher differentials are complete through the 108 stem, and are inferred from the homotopy groups computed in the green book (Table A3.4). When a differential has a source or target of dimension > 1, in general we do not claim to specify which linear combination is involved. (Similarly, we do not attempt to indicate whether a differential hits a generator, or 2 times the generator.)
The differentials beyond the 108 stem are just the easy differentials propagated via β_1-multiplications. Propagating other differentials, as well as determining new families of differentials, is work in progress.