1147-14-439 Neal Livesay* (neall@ucr.edu). Moduli spaces of connections with irregular singularities. Preliminary report.

The problem of classifying singular differential operators has a long and rich history. An algebro-geometric variant of this problem involves the construction of moduli spaces of singular connections on vector bundles (over the Riemann sphere). Recently, significant headway has been made on the notoriously subtle irregular singular case using geometric analogues of fundamental strata. This talk will serve as a brief survey of the state-of-the-art, including recent progress with D. Sage. (Received January 23, 2019)