Informal Seminar in Number Theory

Research in q-series

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Abstract:
I will talk about my research in analytic number theory and present opportunities for students to collaborate.

Among other things, I will talk about how to generalize the following relations between divisor sums and weighted partitions.

$$2\sum_{d|n}\left(\frac{d}{7}\right) = P_{0,1^*,2}(n-1) - P_{1^*,2,0}(n-1) + P_{2,0,1^*}(n), \tag{1}$$

$$\sum_{d|7n+1}\left(\frac{d}{7}\right) = P_{2,1^*,0}(n) + 2P_{1^*,1,1}(n-1), \tag{2}$$

$$\sum_{d|7n+2}\left(\frac{d}{7}\right) = 2P_{1,1,1^*}(n) - P_{1^*,0,2}(n-1), \tag{3}$$

$$\sum_{d|7n+4}\left(\frac{d}{7}\right) = P_{0,2,1^*}(n) + 2P_{1,1^*,1}(n), \tag{4}$$

$$\sum_{d|7n+j}\left(\frac{d}{7}\right) = 0, \qquad j = 3, 5, 6. \tag{5}$$

Date: **Thursday, October 18, 2018**
Time: **1:50 - 3:00 pm**
Place: **Edinburg:** MAGC 3.502
Join from PC, Mac, Linux, iOS or Android:
https://utrgv.zoom.us/j/329566200

Pizza-n-pop will be served.

For further information or for special accommodations, please contact Dr. Brandt Kronholm via email at [brandt.kronholm@utrgv.edu] or Dr. Timothy Huber via email at [timothy.huber@utrgv.edu].