1147-57-346   **Ser-Wei Fu*** (`fusway@hotmail.com`), No. 1, Sec. 4, Roosevelt Rd., Room 203, Astronomy-Mathematics Building, National Taiwan University, Taipei, 106, Taiwan. *Flat grafting deformations of quadratic differentials.*

Flat grafting is a deformation of quadratic differentials that I introduced to be analogous to the earthquake map and the grafting map on hyperbolic surfaces. I will discuss properties of flat grafting deformations such as strata structure, fixed points, and changes to parallel foliations. One application is constructing paths connecting any pair of quadratic differentials. Another application is toward length rigidity of closed curves. (Received January 21, 2019)

1