

Off Strike Displacement of Reverse Faulting

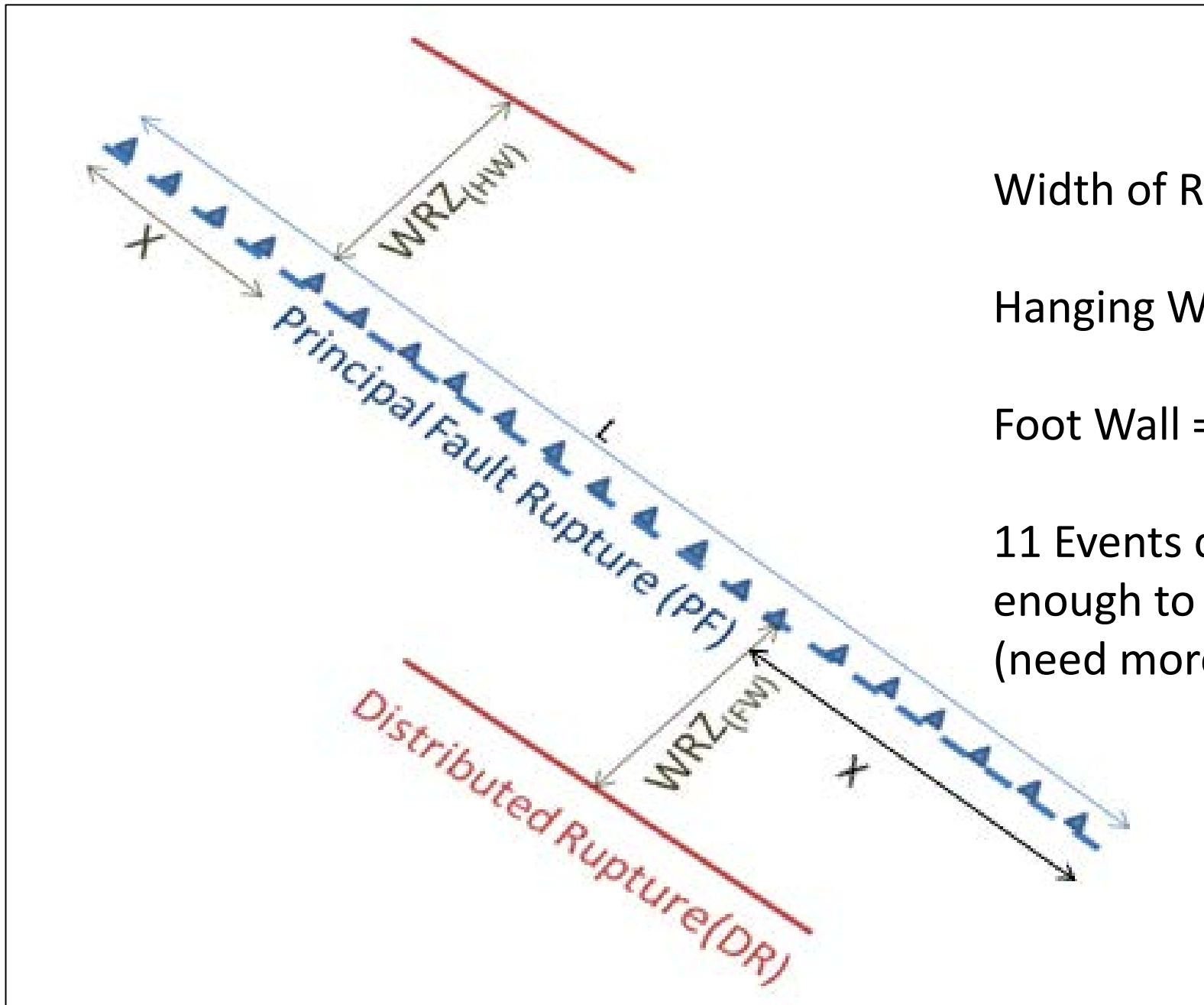
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CAL POLY





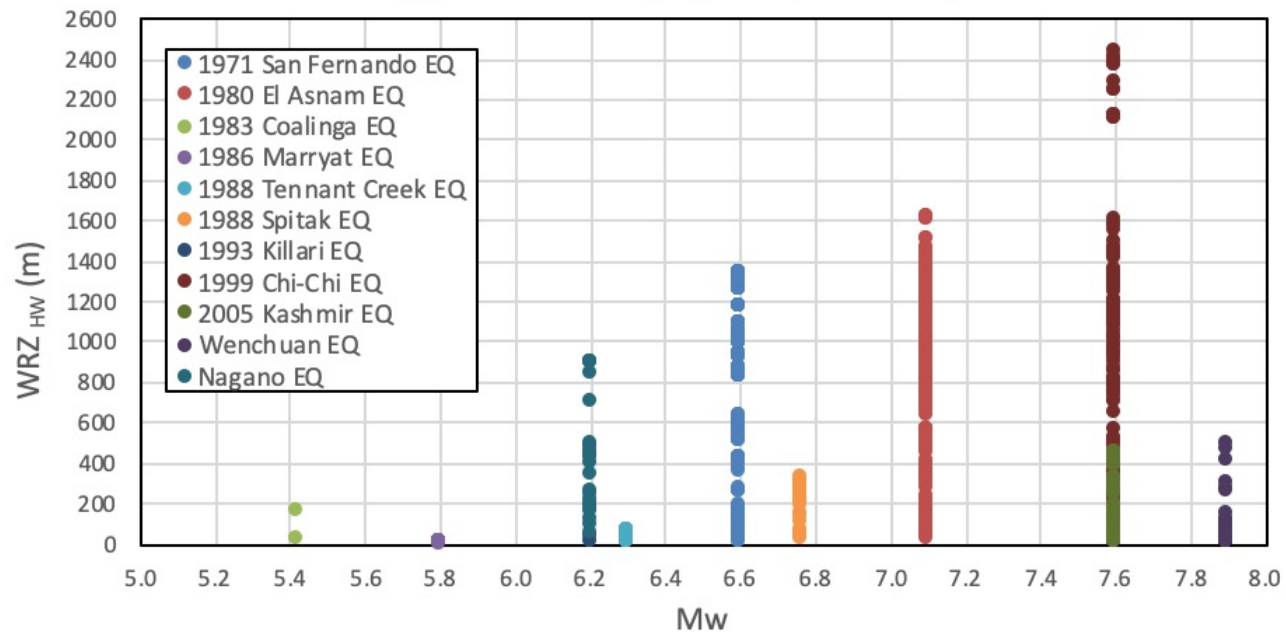
Width of Rupture Zone = WRZ

Hanging Wall = HW

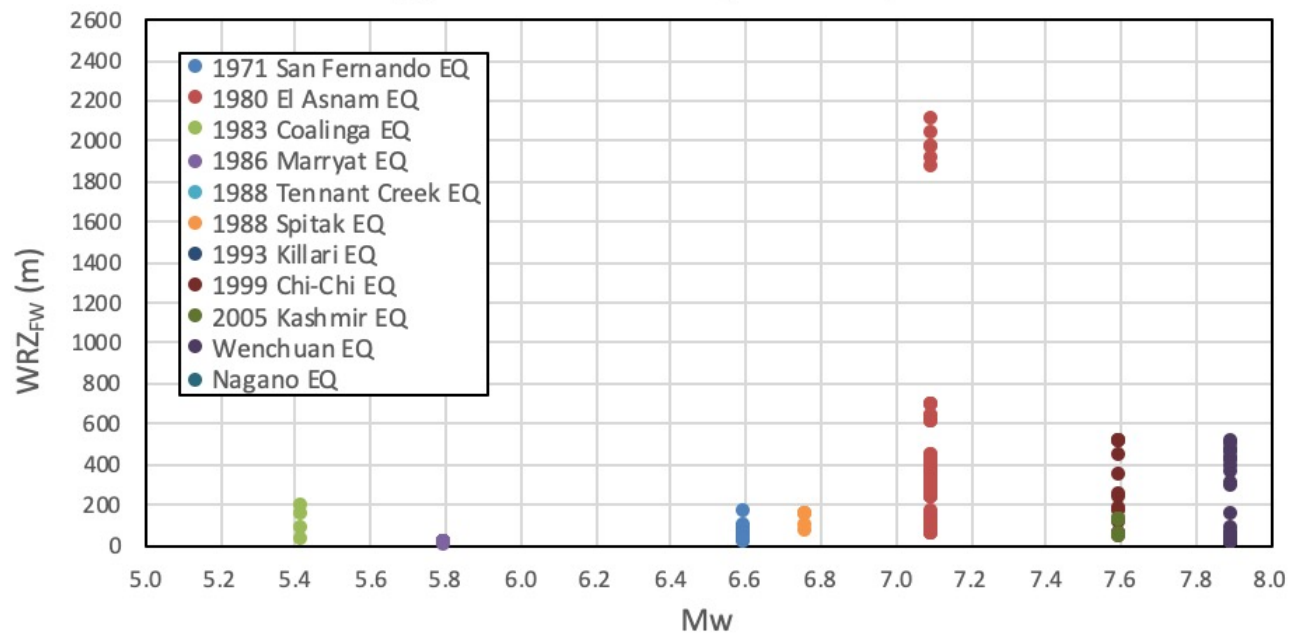
Foot Wall = FW

11 Events characterized
enough to perform statistics on
(need more!)

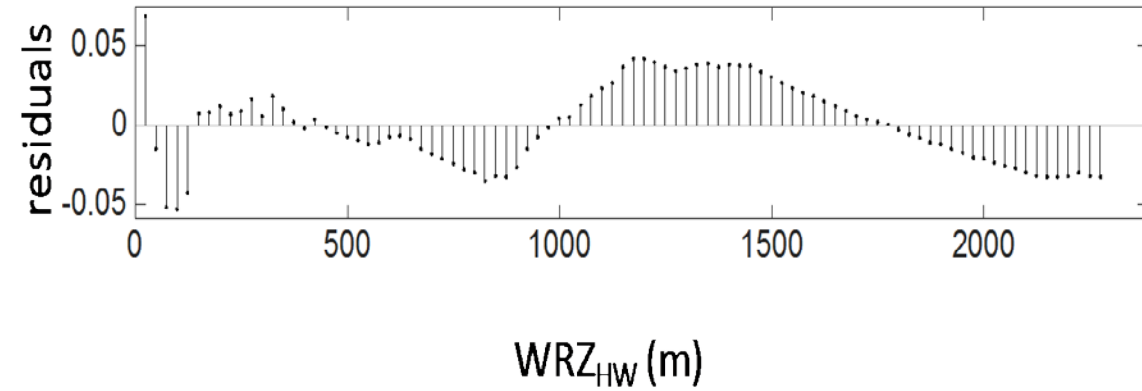
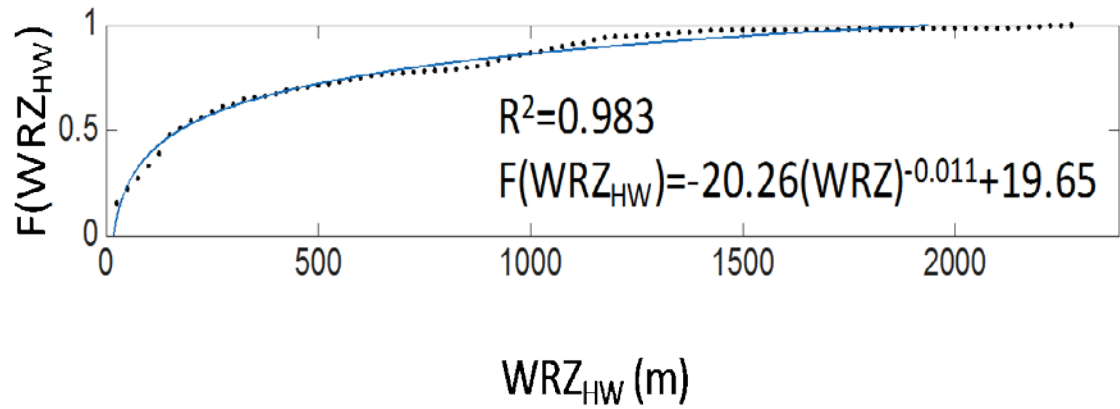
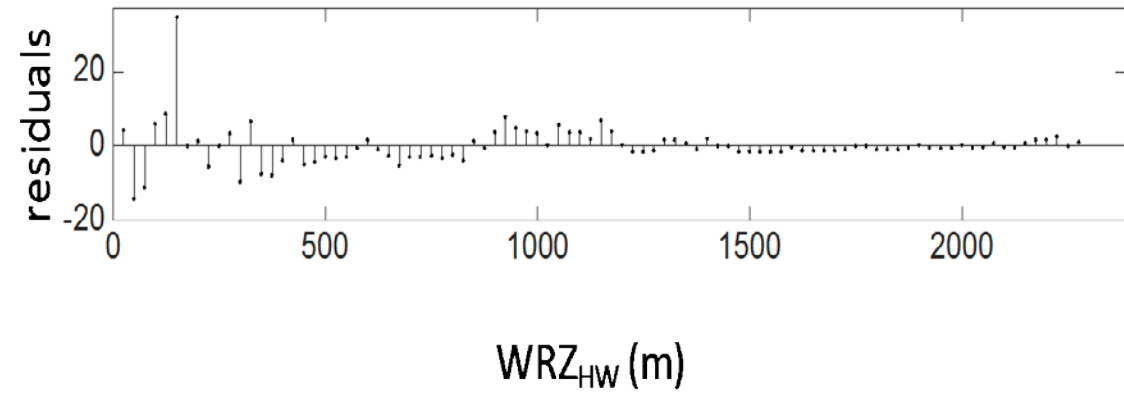
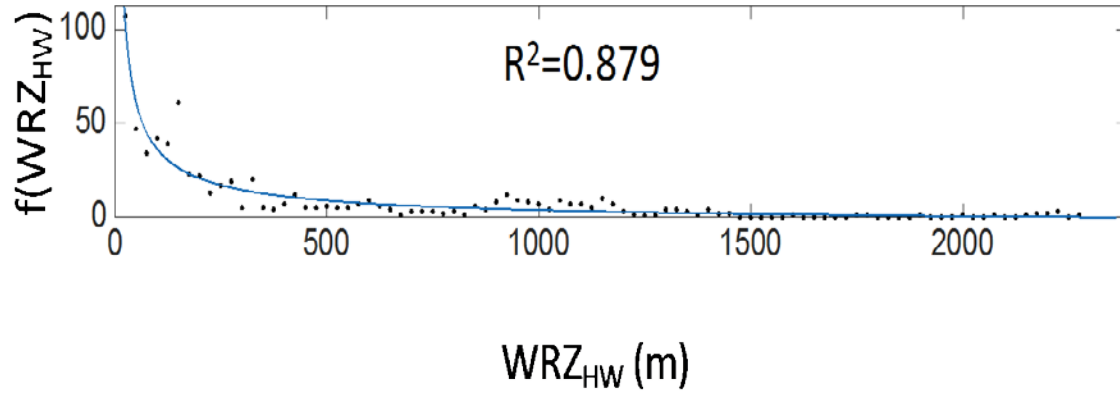
WRZ_{HW} vs Mw for Hanging Wall (without SY)



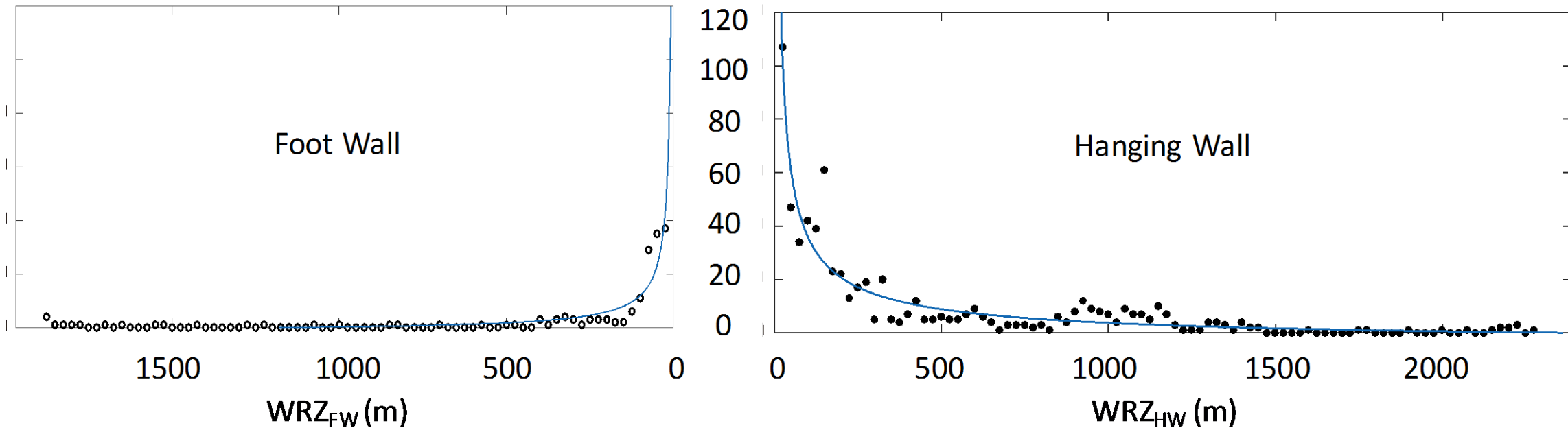
WRZ_{FW} vs Mw for Foot Wall (without SY)



Removed sympathetic displacement, S_y (i.e., slope stability), and in other plots flexural slip, F-S, and bending moment, B-M.

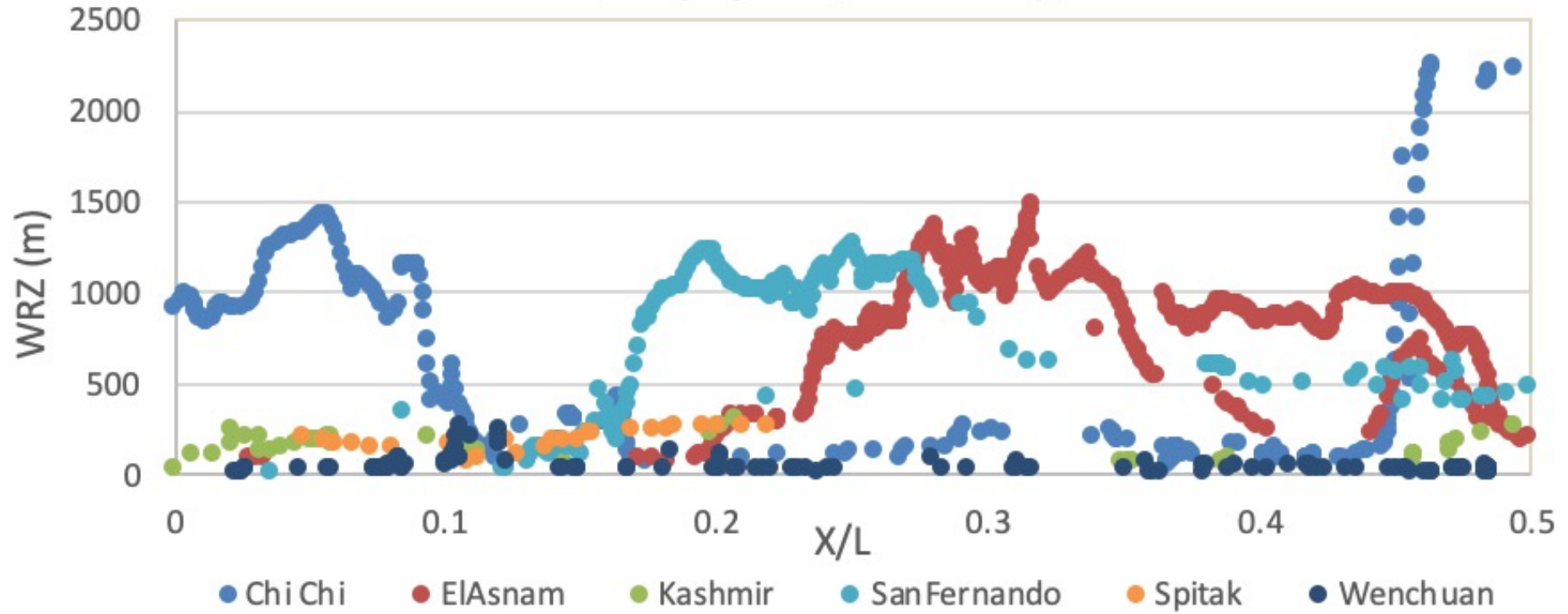


fit of Power function to the data for forecasting purposes

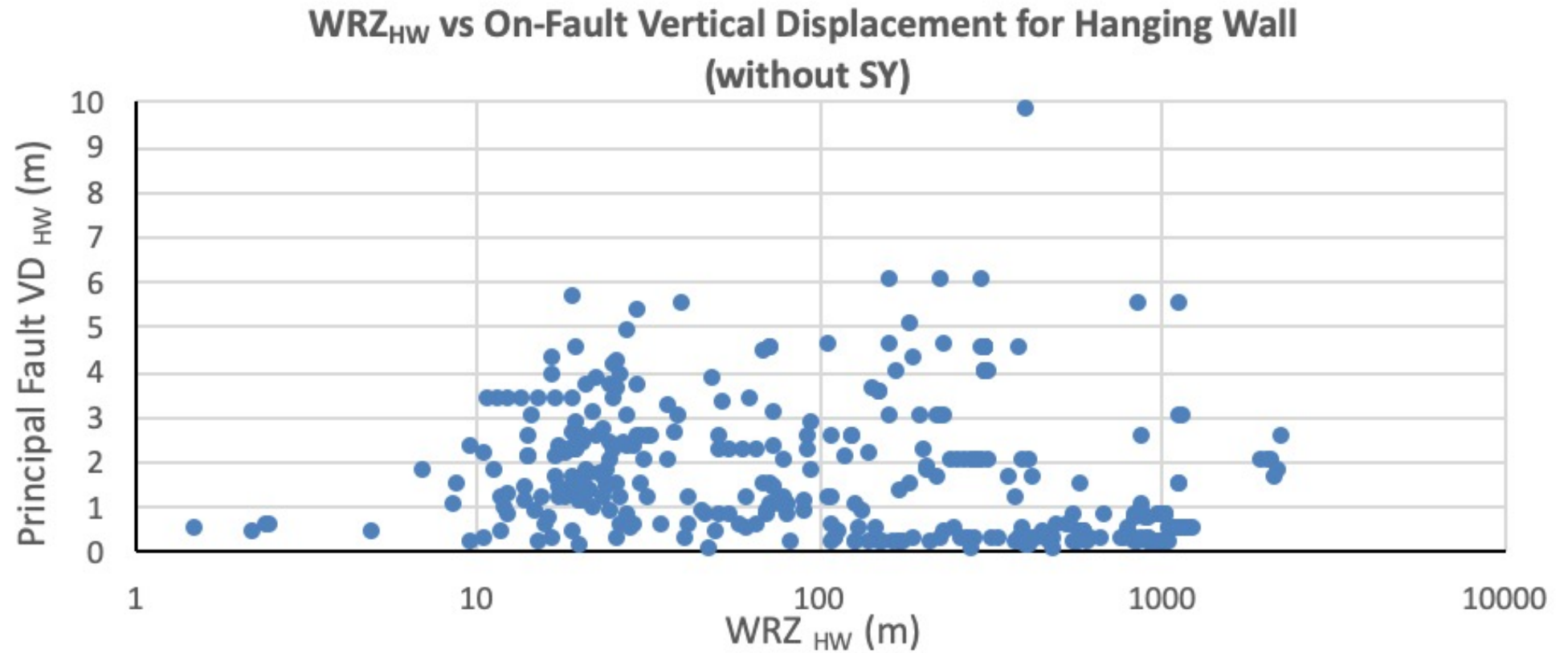


Comparing Foot and Hanging Wall width of rupture zones (WRZ)

Variation of Width of the Rupture Zone versus X/L
(Hanging Wall, without S_y)



No clear X/L dependence (unlike principle rupture)



No clear dependence of WRZ on the Principle Vertical Displacement

Summary:

- Collected available off strike displacement data to quantify the width of rupture zone for reverse faulting
- Removed other displacement effects from the data (Sy, F-S, B-M)
- Adjusted data for bias (not shown)
- Fit power function to data for forecasting purposes
- Evaluated data for dependence on X/L and Vertical Displacement, found no relationship.