





Figure 1: The graphs show the values of dN, dS, and  $\omega$  along the replicons of S. meliloti, chromosome (a), pSymA (b), and pSymB (c). Distance from the origin of replication is on the x-axis beginning with the origin of replication denoted by position zero on the left, and the terminus indicated on the far right. The y-axis of the graph indicates the value of dN, dS, and  $\omega$  found at each gene segment position of the chromosome (a), pSymA (b), and pSymB (c) of S. meliloti. Outliers are represented by light grey open circles. The average dN, dS, and  $\omega$  values for each 10,000bp regions (for the chromosome) and 50,000bp regions (for both pSymA and pSymB) of the replicons were calculated and represented by the dark brown points. A trend line represented in blue (using the loess method), was fit to these average values and the associated 95% confidence intervals for this line is represented by the grey ribbon around the blue trend line. For a complete list of outlier and zero value information, please see the Supplementary Material.