We can get the main results through the following steps:

1. Run the ‘First order.mw’ to get the first order terms of η. Here and after, the order of the equations is the same as that in SI appendix equation (19). While M and N represent N\_F and N\_M.
2. Substitute the first order terms of η and run the ‘Second order.mw’ to get the second order terms of η.
3. Substitute the second order terms of η and run the ‘Third order.mw’ to get the third order terms of η. So far, we have solved η completely.
4. Substitute η got by step 1-3 and SI appendix equation (14) - (17) to equation (7), which are calculated by ‘v\_1F.mw’, ‘v\_1M.mw’, ‘v\_2F.mw’, ‘v\_2M.mw’, to get the final results.