This folder contains semantic interpreters implemented in Haskell similar to the semantic interpreters described in the paper:

Gabriel Ciobanu and Eneia Nicolae Todoran, "Spiking Neural P Systems and their Semantics in Haskell", Submitted to Journal of Natural Computing (2022)

- The semantic interpreters contained in files semSNP-SP.hs, semSNP-SP-fin.hs and semSNP-SP-rnd.hs can be used to run (simulate, verify) examples of spiking neural P systems with structural plasticity taken from:

  F.G. Cabarle, H.N. Adorna, M.J. Perez-Jimenez, T. Song, "Spiking neural P systems with structural plasticity," Neural Computing and Applications 26(8), 1905–1917 (2015).

- The semantic interpreters contained in files semSNP-IR.hs, semSNP-IR-fin.hs and semSNP-IR-rnd.hs can be used to run (simulate, verify) examples of spiking neural P systems with inhibitory rules taken from:

  H. Peng, B. Li, J. Wang, X. Song, T. Wang, L.Valencia-Cabrera, I. Perez-Hurtado, A. Riscos-Nunez, M.J. Perez-Jimenez, "Spiking Neural P Systems with Inhibitory Rules," Knowledge-Based Systems, vol 188, 2020.

  N. Zhou, H. Peng, J. Wang, Q Yang, X. Luo, "Computational completeness of spiking neural P systems with inhibitory rules for generating string languages", Theoretical Computer Science, 2022.

Additional explanations (including instructions on how to run the interpreters) are provided as comments in each file.