

Light transport simulation is used in realistic image synthesis to create physically plausible images of virtual scenes. Important components of the scenes are participating media (e.g. air, water, skin etc.). Efficient computation of light transport in participating media robust to their large diversity is still an open problem. We implemented the UPBP algorithm recently developed by Křivánek et al. It addresses the problem by combining several complementary previous methods using multiple importance sampling, and excels at rendering scenes where the previous methods alone fail. The implementation is available online, we focused on its thorough description to facilitate and support further research in this field.