

# MODELLING EPIDEMIOLOGICAL SPREADING VIA SPATIO-TEMPORAL FRACTIONAL SYSTEMS

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## ABSTRACT

In order to investigate epidemiological spreading we consider geographic mobility of humans not only on small scale, but also on very large scale (see [1],[3]), for example between two places on different continents. For the small-scale the spreading is purely diffusive. In case of large scales we use superdiffusion but spreading happens with higher probability for large distances than expected for purely local diffusive spreading. We also look at epidemiological spreading not only with respect to distributions of jumps but also with respect to distributions of waiting times for jumps. This approach leads to the space-time fractional diffusion equation ([2]).

## References

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