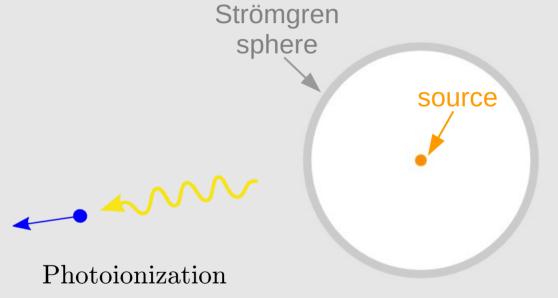
(Durrive & Langer, 2015, MNRAS) (Durrive, Tashiro, Langer, Sugiyama 2016, tbs, MNRAS)

Origin of magnetic fields in the Universe?

(Durrive & Langer, 2015, MNRAS) (Durrive, Tashiro, Langer, Sugiyama 2016, tbs, MNRAS)



Intergalactic medium

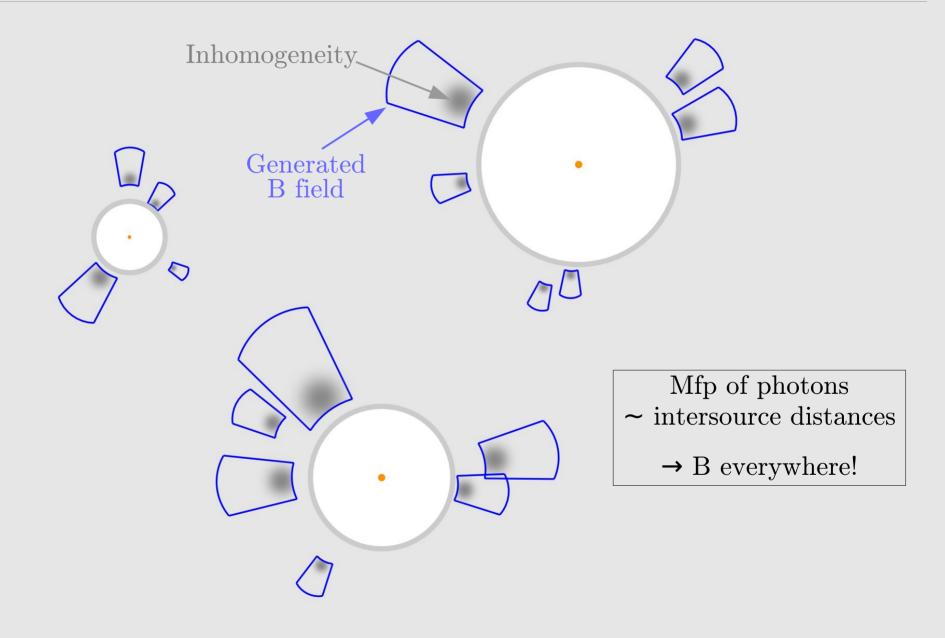
- → Charge separation
- → Electric field

Maxwell-Faraday: $\partial_t \vec{B} = -c \vec{\nabla} \times \vec{E}$

But:

- \rightarrow Need rotational E to generate B
- → Inhomogeneities of intergalactic medium

(Durrive & Langer, 2015, MNRAS) (Durrive, Tashiro, Langer, Sugiyama 2016, tbs, MNRAS)



(Durrive & Langer, 2015, MNRAS) (Durrive, Tashiro, Langer, Sugiyama 2016, tbs, MNRAS)

Mean magnetic field in the Universe:

