**SNR images as diagnostic tools**

**Model components:**
- 3-D MHD structure of SNR
- evolution of cosmic rays (CRs) around the shock and downstream
- interactions with CRs
- evolution and 3-D structure of the ambient MF component 

**Emissivity in ordered + disordered field**

**Turbulent magnetic field component**

**SNR in uniform medium**

**ISM density gradient**

**Conclusions and References**

**Ambient magnetic field gradient**

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**MHD simulations of polarized radio emission of adiabatic SNRs in ISM with nonuniform distribution of density and magnetic field**

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**Emissivity in ordered + disordered field**

- The classical synchrotron emission theory is developed for the ordered MF (synch) on the scale $\gg r$, where $r$ is the Larmor radius.
- However, if the model simulates the only ordered MF, then it is a system. (Glebov et al. 2014). Observations reveal that the ambient MF is nonuniform. (Reynolds et al. 2007, Eriksen et al. 2007).

At this point, we face the following two problems: we need

- An extension of the classical theory of synchrotron emission to ordered + disordered MF.
- A description of structures in turbulent MF component.

**Emissivity in ordered + disordered field**

**Turbulent magnetic field component**

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