

# ***Pulsar Science with the SKA***

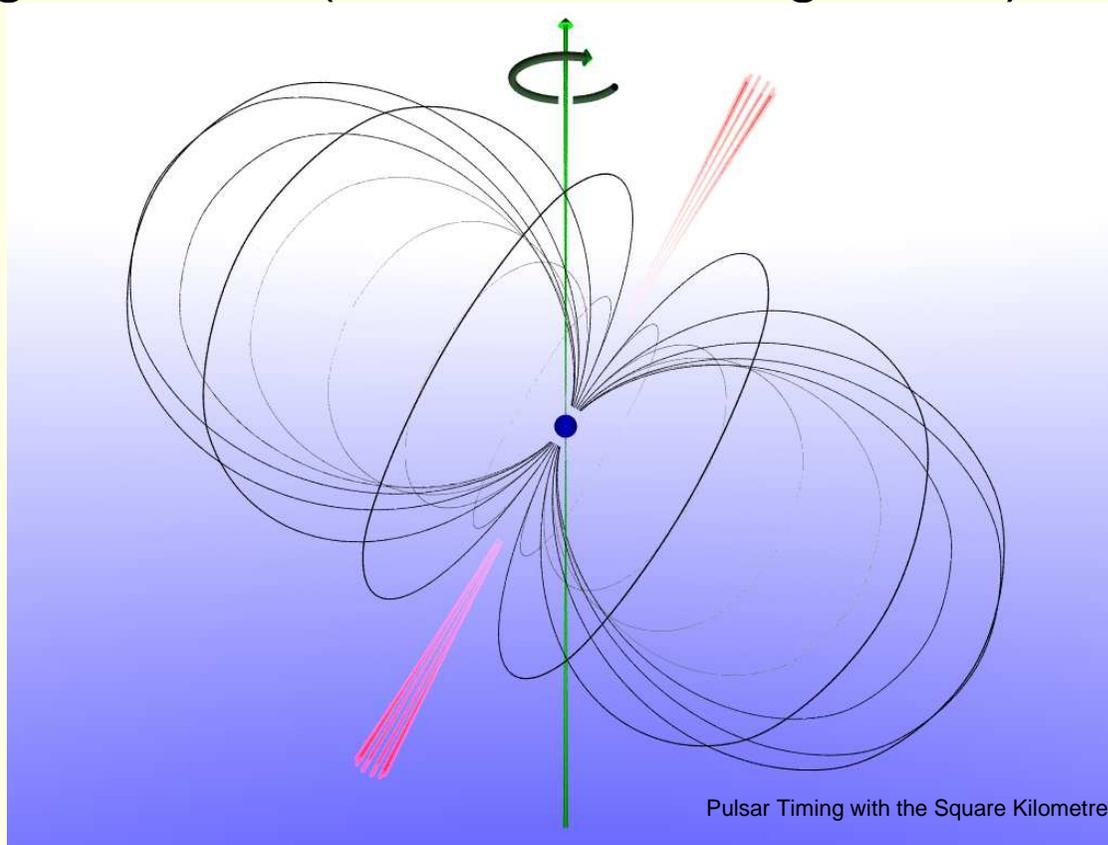
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# *Pulsars are...*

- ⑥ Neutron stars with a diameter of 20 kilometres.
- ⑥ High density, highly magnetised.
- ⑥ Like lighthouses (emit in a rotating beam).

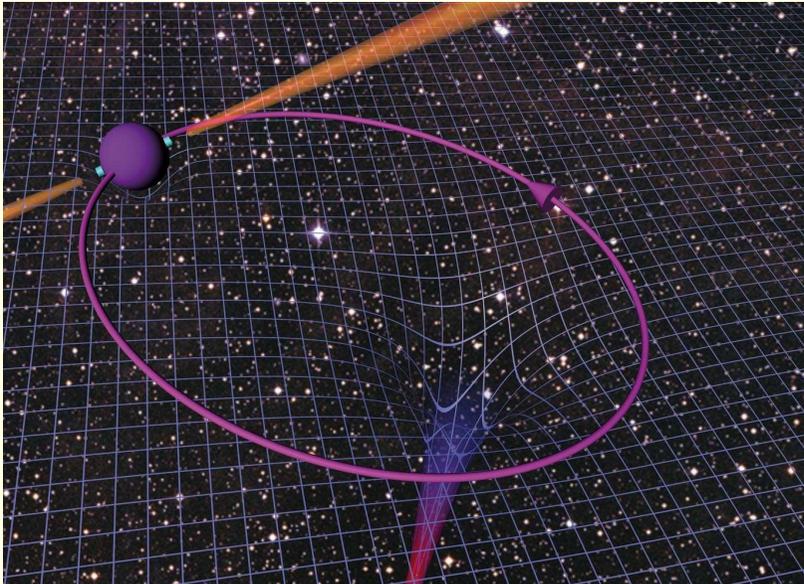


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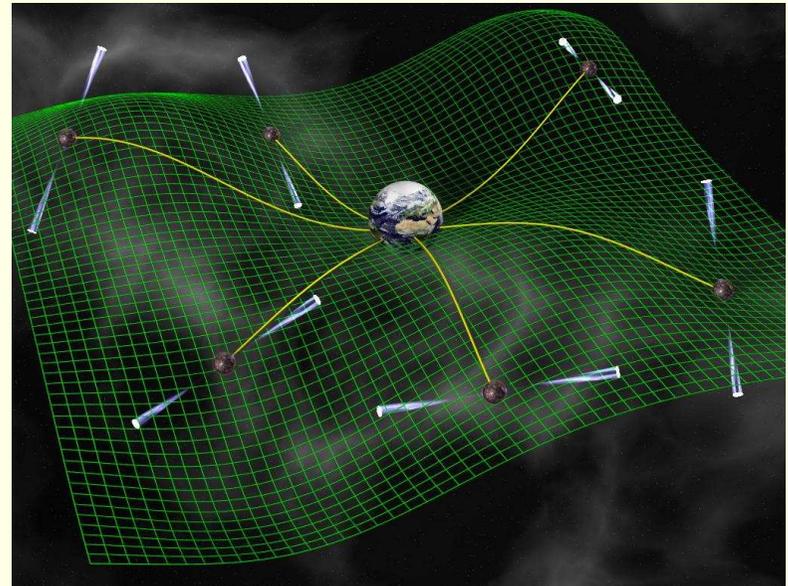
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- ⑥ Pulsar in GC will probe conditions near  $3 \times 10^6 M_{\odot}$  BH
- ⑥ Understanding pulsar physics.

# *Pulsar Survey*

- ⑥ Pulsar survey with SKA requires huge dataprocessing.
- ⑥ This will limit the survey to using only the 1-km core.
- ⑥ The SKA will find about 15 000 new pulsars.

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- ⑥ Timing all pulsars once takes several days.

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- ⑥ Takes 20 days with PAF 15m-dishes.
- ⑥ Takes about 1 day with AA.