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A model for superheavy dark matter that can possibly be tested with Pulsar Timing Arrays

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I propose to discuss a scenario where superheavy Dark Matter (DM) can be generated from ultralight Primordial Black Holes in the early universe. If we go to a bit more fundamental level (e.g., think of how the DM becomes massive after a phase transition), we can associate the scenario with gravitational waves and their possible detection with the Pulsar Timing arrays (PTAs). It might be an interesting probe of superheavy DM in addition to cosmic rays.

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Presenter: SAMANTA, Rome (Istituto Nazionale di Fisica Nucleare) **Session Classification:** Introduction and brainstorming talks