1100-34-236   **Teresa Crespo*** (`teresa.crespo@ub.edu`), Departament d'Algebra i Geometria, Universitat de Barcelona, Gran Via de les Corts Catalanes 585, 08007 Barcelona, Spain, and **Zbigniew Hajto** and **Marius van der Put**. *Real and p-adic Picard-Vessiot fields.*

For a differential module over a real (resp. p-adic) differential field such that its field of constants is real closed (respectively p-adically closed), we obtain the existence and unicity of a real (respectively p-adic) Picard-Vessiot field. The proof uses Deligne's work on Tannakian categories and a result of Serre on Galois cohomology. (Received February 09, 2014)