



Mi, 23.4.2014, 14:15 Uhr
Hörsaal für Physik

“Fire, rain and dryness trigger seed release”

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Though being sessile, plants have evolved strategies of growth and survival that allow them to move, reproduce and disperse through time and space, even in extremely cold or hot, wet or dry environments. For this, functionality of the material forming the plant body (almost exclusively polymers) is essential. Some of the most striking examples for functionality of dead plant material are seed structures: eg the cones of pines, native in our region, release their seeds upon maturity and during dry weather to provide good dispersal. In contrast, so-called serotinous plants store their seeds for longer periods on the plant and require a trigger for seed release. In very dry regions ice plants release their seeds only when it rains and in fire-prone environments many plants encapsulate and store their seeds for more than 15 years until they are released, in many cases during/after fires, eg Banksias. In this talk structure and function of selected seed capsules will be discussed.