

## Drying drop and pool of blood for medical and forensic applications

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Investigation of the physical phenomena involved in blood interactions with real surfaces present new exciting challenges. The fluid mechanical properties of such a fluid is singular due its non-Newtonian and complex behaviour, depending on the surrounding ambient conditions and the donor/victim's blood biological properties. The fundamental research on the topic remains fairly recent; although it finds applications in fields such as forensic science, with bloodstain pattern analysis, or biomedical science with the prospect of disease detection from dried blood droplets. In this talk, I will review the understanding that has been achieved by interpreting blood wetting, spreading and drying when in contact, ex-vivo, with non-coated surfaces. Ultimately, we highlight the applications with the most up to date research, future perspectives, and the need of advancing further in this topic for the benefit of researchers, engineers, bloodstain pattern analysts, and medical practitioners.

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**MPIDS, Prandtl lecture hall, AI building,  
Am Faßberg 11, Göttingen**

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