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## Supplementary material:

Dynamics of high-speed micro-droplet impact: numerical simulations and experiments at frame rates beyond  $10^7~{\rm fps}$ 

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Table 1: Parameters for droplet impact movies. Their point in the phase diagram has been indicated in figure S1.

| File name | $D_0[\mu \mathrm{m}]$ | V <sub>0</sub> [m/s] | Re   | We   | Surface          | Bottom view |
|-----------|-----------------------|----------------------|------|------|------------------|-------------|
| Mov1      | 45                    | 15                   | 696  | 150  | Superhydrophobic | No          |
| Mov2      | 50                    | 17                   | 836  | 196  | Glass            | Yes         |
| Mov3      | 49                    | 16                   | 803  | 183  | Glass            | No          |
| Mov4      | 49                    | 16                   | 803  | 183  | RainX            | No          |
| Mov5      | 47                    | 26                   | 1231 | 449  | Glass            | No          |
| Mov6      | 47                    | 26                   | 1237 | 453  | RainX            | No          |
| Mov7      | 47                    | 49                   | 2286 | 1559 | Glass            | No          |
| Mov8      | 47                    | 49                   | 2283 | 1550 | RainX            | No          |

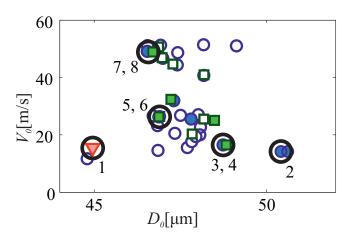


Figure S1: Overview of the phase space of droplet impact: velocity versus diameter.

Movies are labeled with a number, corresponding to table 1