Continuous and discontinuous transitions between two types of capillary bridges on a beaded chain pulled out from a liquid.

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Supplementary Movie Captions

Supplementary Movie 1. The process of pulling the chain of spheres with radius $R = 2\text{mm}$ out of the 10cSt silicone oil with the vertical velocity $v = 0.01\text{mm/s}$. The sphere-planar liquid surface bridge transforms into the sphere-sphere bridge continuously. The chain was assembled by gluing the spheres together. Section of the video frame (700px x 620px) was used to measure the projected area $S$ of the spheres and liquid onto a plane parallel to the $z$ axis which was then used in making the inset in Fig. 6.

Supplementary Movie 2. The process of pulling the chain of spheres with radius $R = 25\mu\text{m}$ out of the 10cSt silicone oil with the vertical velocity $v = 0.01\text{mm/s}$. The sphere-planar liquid surface bridge transforms into the sphere-sphere bridge discontinuously. The chain was assembled by employing the alternating electric field. Section of the video frame (300px x 250px) was used to measure the projected area $S$ of the spheres and liquid onto a plane parallel to the $z$ axis which was then used in making the inset in Fig. 6.

Supplementary Animation 1. The process of pulling the chain of spheres with radius $R = 2\text{mm} > \lambda/2$, where the capillary length $\lambda = 1.45\text{mm}$. The sphere-planar liquid surface bridge transforms into the sphere-sphere bridge continuously. This animation is based on our theoretical analysis and corresponds to Supplementary Movie 1.

Supplementary Animation 2. The process of pulling the chain of spheres with radius $R = 25\mu\text{m} < \lambda/2$, where the capillary length $\lambda = 1.45\text{mm}$. The sphere-planar liquid surface bridge transforms into the sphere-sphere bridge discontinuously. This animation is based on our theoretical analysis and corresponds to Supplementary Movie 2.