

Explicit Horizontal Open Books on some Plumblings

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We describe explicit open books on arbitrary plumblings of oriented circle bundles over closed oriented surfaces. We show that, for a non-positive plumbing, the open book we construct is horizontal and the corresponding compatible contact structure is also horizontal and Stein fillable. In particular, we describe horizontal open books on some Seifert fibered 3-manifolds. As another application we describe horizontal open books isomorphic to Milnor open books for some complex surface singularities. Moreover we give examples of tight contact 3-manifolds supported by planar open books. As a consequence the Weinstein conjecture holds for these tight contact structures. (joint work with Burak Ozbagci)