3D Hg Jet Simulations

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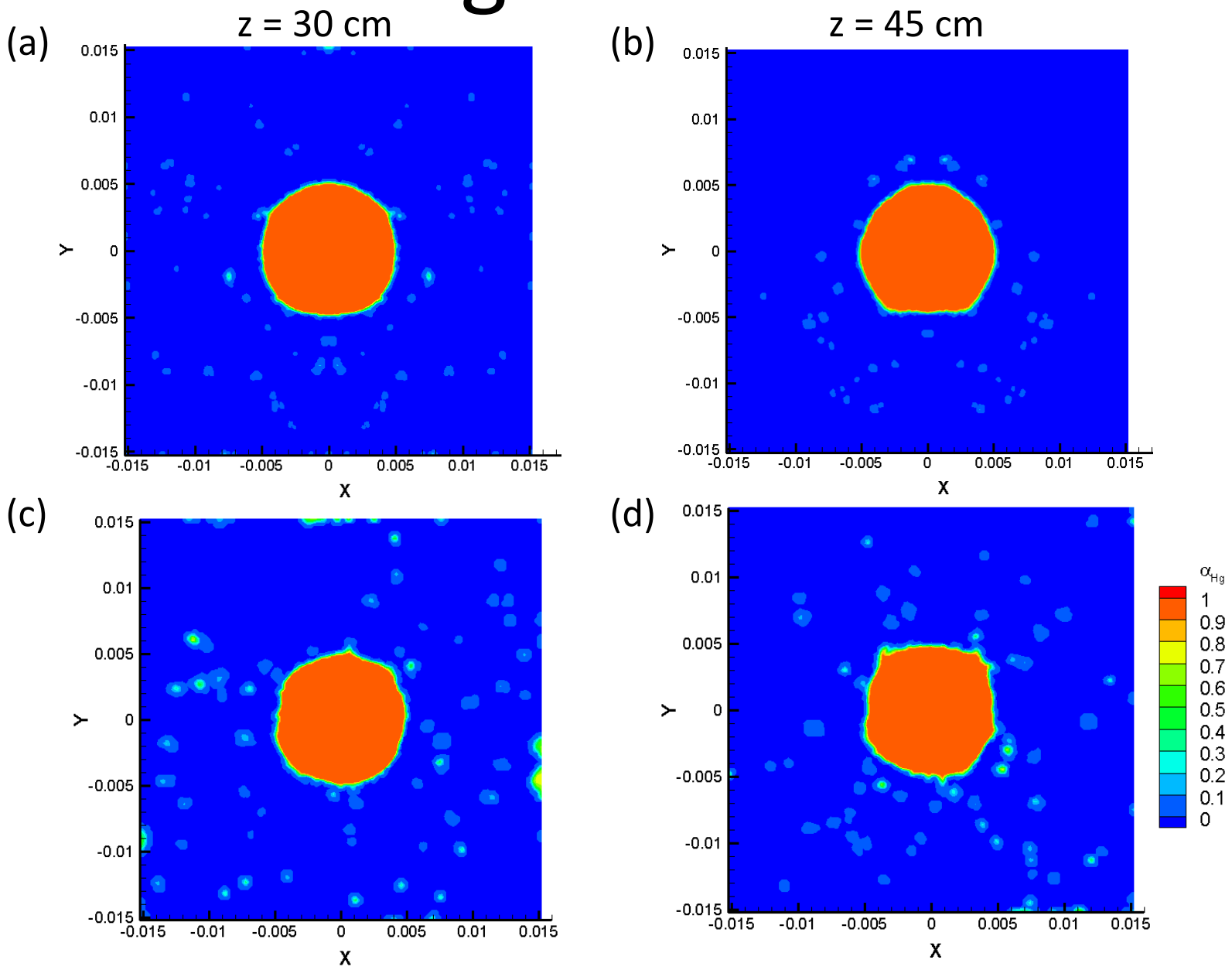
Outline

- Two 3D Hg Jet Simulations
  - Case1: Outlet of the pipe without a bend and a weld
  - Case2: Outlet of the pipe with 90°/90° bend and 30° weld
- Ellipse Fitting

Two 3D Hg Jet Simulations

Case 1

Case 2



Results of α_{Hg} of (a) case 1 at z = 30 cm, (b) case 1 at z = 45 cm (c) case 2 at z = 30 cm, and (d) case 2 at z = 45 cm.

Ellipse Fitting

Ellipticity = major axis / minor axis = a / b

	a	b	θ	xc	yc	ellipticity
Case 1 at z = 30 cm	0.0051972	0.0050006	0	-9.2935e-07	4.3514e-05	1.038
Case 1 at z = 45 cm	0.0051418	0.0050082	0	-2.8877e-07	3.9837e-05	1.027
Case 2 at z = 30 cm	0.0051095	0.0049845	-26.248°	-2.5908e-05	1.8698e-05	1.025
Case 2 at z = 45 cm	0.0051969	0.0050490	13.165°	-5.2749e-05	2.0298e-05	1.030

Note: (xc,yc) is the ellipse center, case1: Outlet of the pipe without a bend and a weld, and case2: Outlet of the pipe with 90°/90° bend and 30° weld.