

The diagram illustrates a machine learning workflow for crack pattern prediction. It features three main components in rounded rectangular boxes: 'Indenter (Velocity, Radius, Angle, Hitting location)' on the left, 'ML' in the center, and 'Data set of crack pattern' on the right. A thick blue arrow at the top, labeled 'Forward problem', points from the indenter box to the data set box. A thick blue arrow at the bottom, labeled 'Inverse problem', points from the data set box back to the indenter box.

Forward problem

ML

**Data set of
crack pattern**

**Indenter
(Velocity,
Radius, Angle,
Hitting location)**

Inverse problem