

| Model  | Predict<br>in i.i.d.<br>setting | Predict under<br>changing distr.<br>or intervention | Answer<br>counterfactual<br>questions | Obtain<br>physical<br>insight | Learn<br>from<br>data |
|--|---------------------------------|---|---------------------------------------|-------------------------------|-----------------------|
| Mechanistic/<br>physical, e.g.,<br>Sec. 2.3      | yes                             | yes   | yes                                   | yes                           | ?                     |
| Structural<br>causal model,<br>e.g., Sec. 6.2    | yes                             | yes   | yes                                   | ?                             | ?                     |
| Causal graphi-<br>cal model,<br>e.g., Sec. 6.5.2 | yes                             | yes   | no                                    | ?                             | ?                     |
| Statistical<br>model, e.g.,<br>Sec. 1.2          | yes                             | no  | no                                    | no                            | yes                   |