**An Economics Model of the COVID-19 Epidemic: The Importance of Testing and Age-Specific Policies. Luiz Brotherhood, Philipp Kircher, Cezar Santos, Michèle Tertilt (2021)**

The model augments a standard SIR epidemiological model with individual choices on work and non-work social distancing for young and old agents.

The model includes young and old agents with consumption and leisure goods. Infected individuals are initially uncertain unless they are tested. In addition, it also features testing and hospitalization and optimal lockdown, testing and quarantines. They find that:1) older individuals socially distance themselves substantially in equilibrium, 2) an optimal lockdown then confines the young more, 3) the strictness and economic costs of the optimal lockdown depend on whether or not individuals can telework, 4) Testing and quarantines save lives, even if conducted just on the young, 5) When some testing is available, the optimal lockdown is much lighter and GDP rises even compared with a no-policy benchmark.