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In[100]:= N = 10^3;
gamma = 9.5;
beta = gamma / 200;
mu = 0;
S0 = 9 * 10^2;
I0 = 10^2;
R0 = N - S0 - I0;
tend = 2;
S = .; I = .; R = .;
Sol1 = NDSolve[{D[S[t], t] == mu * N - beta * S[t] * I[t] - mu * S[t], D[I[t], t] ==
  beta * S[t] * I[t] - (gamma + mu) * I[t], D[R[t], t] == gamma * I[t] - mu * R[t],
  S[0] == S0, I[0] == I0, R[0] == R0}, {S, I, R}, {t, 0, tend}];
Plot1 = Plot[Evaluate[I[t] /. First[Sol1]], {t, 0, tend}, PlotPoints -> 200,
  Mesh -> False, AxesLabel -> {t, I}, PlotRange -> All, PlotStyle -> Red,
  FrameLabel -> {Style["t", FontFamily -> "MS Serif", FontSize -> 21],
  Style["Πλήθος μολυσμένων", FontFamily -> "MS Serif", FontSize -> 21]}},
  RotateLabel -> True, Frame -> {{Automatic, False}, {Automatic, False}}];
beta = gamma / 500;
Sol2 = NDSolve[{D[S[t], t] == mu * N - beta * S[t] * I[t] - mu * S[t], D[I[t], t] ==
  beta * S[t] * I[t] - (gamma + mu) * I[t], D[R[t], t] == gamma * I[t] - mu * R[t],
  S[0] == S0, I[0] == I0, R[0] == R0}, {S, I, R}, {t, 0, tend}];
Plot2 = Plot[Evaluate[I[t] /. First[Sol2]], {t, 0, tend}, PlotPoints -> 200,
  Mesh -> False, AxesLabel -> {t, I}, PlotRange -> All, PlotStyle -> Magenta,
  FrameLabel -> {Style["t", FontFamily -> "MS Serif", FontSize -> 21],
  Style["Πλήθος μολυσμένων", FontFamily -> "MS Serif", FontSize -> 21]}},
  RotateLabel -> True, Frame -> {{Automatic, False}, {Automatic, False}}];
beta = gamma / 950;
Sol3 = NDSolve[{D[S[t], t] == mu * N - beta * S[t] * I[t] - mu * S[t], D[I[t], t] ==
  beta * S[t] * I[t] - (gamma + mu) * I[t], D[R[t], t] == gamma * I[t] - mu * R[t],
  S[0] == S0, I[0] == I0, R[0] == R0}, {S, I, R}, {t, 0, tend}];
Plot3 = Plot[Evaluate[I[t] /. First[Sol3]], {t, 0, tend}, PlotPoints -> 200,
  Mesh -> False, AxesLabel -> {t, I}, PlotRange -> All, PlotStyle -> Blue,
  FrameLabel -> {Style["t", FontFamily -> "MS Serif", FontSize -> 21],
  Style["Πλήθος μολυσμένων", FontFamily -> "MS Serif", FontSize -> 21]}},
  RotateLabel -> True, Frame -> {{Automatic, False}, {Automatic, False}}];
beta = gamma / 1900;
Sol4 = NDSolve[{D[S[t], t] == mu * N - beta * S[t] * I[t] - mu * S[t], D[I[t], t] ==
  beta * S[t] * I[t] - (gamma + mu) * I[t], D[R[t], t] == gamma * I[t] - mu * R[t],
  S[0] == S0, I[0] == I0, R[0] == R0}, {S, I, R}, {t, 0, tend}];
Plot4 = Plot[Evaluate[I[t] /. First[Sol4]], {t, 0, tend}, PlotPoints -> 200,
  Mesh -> False, AxesLabel -> {t, I}, PlotRange -> All, PlotStyle -> Green,
  FrameLabel -> {Style["t", FontFamily -> "MS Serif", FontSize -> 21],
  Style["Πλήθος μολυσμένων", FontFamily -> "MS Serif", FontSize -> 21]}},
  RotateLabel -> True, Frame -> {{Automatic, False}, {Automatic, False}}];
MP0 = Show[Plot1, Plot2, Plot3, Plot4, PlotRange -> {{0, tend}, {0, 500}}, Epilog ->

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Inset[Column[{LineLegend[{Red, Magenta, Blue, Green}, {" $\gamma/\beta=200$  άτομα",  
" $\gamma/\beta=500$  άτομα", " $\gamma/\beta=950$  άτομα", " $\gamma/\beta=1900$  άτομα"}, LabelStyle →  
{FontFamily → "Times New Roman", FontSize → 21, FontSlant → Italic}]}],  
Scaled[{0.7, 0.8}]], MaxRecursion → 0, PlotPoints → {200, 100},  
AspectRatio → 1, AxesOrigin → {0, 0}, RotateLabel → True,  
LabelStyle → {21, GrayLevel[0]},  
FrameTicks → {{{0, 100, 200, 300, 400, 500}, None}, {{0, 0.5, 1, 1.5, 2}, None}},  
ImageSize → {450, 450}, AspectRatio → Full,  
PlotLabel → None, LabelStyle → {21, GrayLevel[0]}]
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