Considerations to allow D&D 6.283… <https://github.com/EvanNibbe/Dungeons_and_Dragons_7_3_edition/blob/master/6.2831853%20Dungeons%20and%20Dragons.pptx> to be implemented with realistic physics.

This is amended here: <https://docs.google.com/document/d/14dMdrq6dPYVmuSllC4K5ndPctDpUdblMbUHpl9eo_vE/edit?usp=sharing>

1. For the purpose of avoiding communication backwards through time between people who are moving close to light speed relative to each other who are also scrying (slide 89) each other or sending (slide 123) messages to each other: all speeds are considered relative to the “average observed speed” of hypothetical observers distributed uniformly through the intergalactic medium who, in a virtual sense (they are mathematical constructs similar to Earth’s “Prime Meridian”), have never seen the effect of the acceleration of galaxies relative to each other due to dark energy. As in, when two people are scrying each other from two galaxies on different sides of the “Particle Horizon” relative to each other from places inside those galaxies reasonably far away from major sources of gravity, they can talk perfectly normally (the one with more gravity (or speed relative to those aforementioned observers) will appear to talk slower to the one with less, and the one with less will appear to talk faster); the same would be true if they were both floating in the intergalactic medium (at which point the only differences in speed of talking to each other would be from your speed relative to those observers (the virtual observers (who are “stationary” relative to their nearest galaxies) beyond the distance from you at which dark energy can be considered non-negligible themselves become negligible in their effect on your determination of speed)).
2. Supernovae (slide 139) done via just the 12th level evocation spell is 1/2 solar mass of light energy released in a sphere as according to that description. Casting the level 13 Evocation spell (slide 140) at the same time (via passing the 144 DC intelligence check to cast Supernova via a separate Ring of Power at the same time, or else wait an hour to make the check again) controls all of that light to be of the particular wavelengths of his choosing to be emitted at the speed of his choosing (as in the relative power as no spell affects the speed of light (except to the extent that those for whom time is stopped by the 9th level transmutation spell have the effect of imagining the light around them coming into their eyes as if time was still ongoing without any of that light being absorbed) releasing the remainder all at once if a different Evocation spell is cast via the Ring casting Supernova (or the one casting Controlled Supernova, unless Controlled Supernova is being cast via a person for some weird reason, in which case the remaining energy is released when they lose concentration)) (relative to an observer not moving relative to the chosen point of origin of the supernova (or supernova laser if the caster chooses a line) which the caster may choose to have move (automatically chosen unless specifically willing otherwise to move with your spacecraft when you are on a spaceship being accelerated by your beam hitting a “perfectly” reflective plate at the back.
3. As per the rules of Rings of Power (in particular, slide 200), to include the Supernova spell into a Ring, (given that Supernova requires that you have a Ring and that you have a Volcano (for casting of Supernova via a Ring, you don’t need to be above the volcano that you were involved in making, it just needs to still exist at that time (described above)), then since the Hold Power (slide 29) object needs to consume any material components of the spell while the spell is being imbued into it, and the cantrip itself only has a range of touch (unless it itself is being cast from a Ring of Power with the Hold Power spell imbued into it, which would have required 8 objects of level 11 size that would have been included for level 11 spells of each school of magic being consumed into a 1 inch sphere of, say, jade for holding the Hold Power spell; putting the Hold Power spell into a Ring increases the range of the spell to the default range of the Ring, 107\*number of Hold Power objects the Ring was made with^2, which itself would have been at least 7 objects, so 1 mile range minimum) one would have to place the Hold Power object on top of the Ring (telekinetically presumably) being destroyed by the lava while having someone else just finish destroying the Magic Volcano (slide 78) with Meteor Swarms (slide 134) or Earthquakes (133) while casting the Supernova spell and succeeding on the intelligence check X~Uniform(0, intelligence of artificer +average of intelligence of casters of Supernova), X>144 for success in casting (along with expending the required experience on a successful cast into the Hold Power object). If the same person is casting Hold Power and the Supernova spell (such as by using a Ring with the Hold Power spell built in), then it is just their own intelligence that is considered in the calculation (even if others are helping to cast the Supernova spell (presumably to share the experience expenditure)).
4. An example of how the timing system would work in practice would be that if someone were to try teleporting out of a black hole (after spending any amount of time below the event horizon) they would return to a universe increased in age by the time it would take to allow that black hole to disperse via Hawking Radiation (takes 10^88 years for a 1-solar-mass black hole to do so) even if the black hole was created via magic (2 casts of controlled supernovae (such as by using one Ring to multicast supernova to 2 supernovae and another ring to multicast controlled supernova to two times (to make a Hold Power object capable of casting controlled supernova to put into a Ring to do that would have required destroying a Ring touching both the Hold Power object and the lava of a Magic Volcano while casting both supernova and controlled supernova into it while casting Hold Power and succeeding on the intelligence check as above with X>169)) and had since been dispelled via a Global Dispel Magic (slide 53). The 2 ways to get around this is by 1) casting Time Stop via a Ring with sufficient range to allow you to look inside and come back out within the 1+1d4 \* 6 seconds (or multicasting it, which increases that time as if cast instantly at the next interval when the previous one ends), or 2) having someone else on the outside multicast teleport (obviously via a Ring) to get you back without expending time. The second option would appear to the person going inside the black hole as if they never actually went into the black hole (Einstein’s General Relativity speaking: due to the vast amount of time observed passing from the perspective of the person on the outside watching the other person go in in that they only see the red shifting of light to black over the lifetime of the black hole in question without ever seeing them go in). The second option does not allow you to figure out how quantum physics meshes with the force of gravity, where the first option does.
5. Two beam-like controlled supernova spells at different angles relative to each other in space that have a combined mass-energy equivalence of a black hole of a diameter greater than or equal to the distance enclosing where that energy lies will create a black hole of that mass with the average momentum in that direction. For example, if two such beams with all of their energy contained at the start of the wave front pass each other from different directions within 5908.25 meters of each other will turn into a 1 solar mass black hole 5908.25 meters in diameter (as per the Schwarzschild radius equation: r\_s=2GM/c^2, with r in meters, G in m^3\*kg^-2\*s^-2, M in kg, c in m/s.
6. The “demon” created by a wizard cutting himself with his own sword of undeath (slide 171) is changed in this version to be vulnerable to Force damage (as opposed to being invulnerable to all forms of damage, which would also include fall damage), and shall have no specific form in its invisibility—except that it is contiguous and cannot pass through objects (if an opening is suddenly closed in the middle of it, it chooses one side or the other). If this “demon” is touched by silver, then it takes human form (or the main form of whichever wizard made it) and requires 1 minute of concentration to extricate itself from all pieces of silver touching it. It’s only in that form that it’s able to speak (in its normal voice unless using Thaumaturgy, which it would only have access to if, while it was a wizard, it had already learned Thaumaturgy (after having gone to a monastery for 1 year then the School of transmutation, having been originally born a creature with Thaumaturgy, or having been True Polymorphed (9th level Transmutation) or Reincarnated (5th level clerical Transmutation spell, as in would have required 5 years at the Monastery before getting it from going to the school of Transmutation) into a creature with Thaumaturgy at some point in time). Also, if turned to stone with Flesh to Stone (slide 188), the wizard who became a “demon” is also a stone of that same shape, then vulnerable to all non-psychic or enchantment-spell-based damage (people turned to stone are also immune to Power Word Kill (slide 113)) that takes effect when they are restored to “flesh”. Similarly they are vulnerable to being polymorphed into a creature not immune to a certain kind of damage so that the leftover damage from a hit that “kills” that creature affects them. However, if polymorphed, they still remain invisible. And of course they are still not immune to Power Word Kill (though if they had more than 100 hp as a wizard before it cut itself with a weapon of undeath, they may need to be force damaged lower than 100 or polymorphed into a creature with fewer hp).
7. When a person or creature is polymorphed (or using the wild-shape feature of the Druid class if that is implemented (could be assumed to be a thing for a few people in that world, in which case it would be the specific non-spell casting features (that do not take up spell slots))), they retain their same intelligence and wisdom statistics, the rest being replaced with the statistics of the creature in question.
8. Shapeshifters do not automatically succeed on the Charisma saving throw to avoid being affected by Polymorph or True Polymorph against their will. Rather, they have 2 levels of advantage (1 level of advantage when fighting the spell of someone who has advantage already on their spell casting modifier). Becoming a creature unable to speak may prevent you from speaking. You can still cast message or Thaumaturgy even if you are turned into a creature that cannot speak of which, Thaumaturgy allows you to satisfy the verbal requirements of spells (when those spells are not cast through a hold power object or Ring of Power and were not chosen to be able to be cast subconsciously according to the features you have gained by going through Schools of Magic) through the option of “make your voice 3X louder”. Also being seen through a seeing stone (divination cantrip) even if you are in a form incapable of speaking and you do not have Thaumaturgy, you can, if you have a divination spell and an enchantment spell you know, you can still use that enchantment spell against the person seeing you with the seeing stone even if it has a verbal component.
9. Falling damage or bludgeoning damage while having been polymorphed (except after 1 hour concentration of True Polymorph in which case turning back to your original form takes another True Polymorph or a Reincarnate spell) doesn’t count against your original form if the Polymorph ends because the fall or bludgeoning damage exceeds the hp of the polymorphed form. All other damage types, the excess damage goes into your original form.
10. The create snow conjuration cantrip is minutes^2 average snow on a Poisson distribution with 1 flake in the time between the previous square root of an integer of minutes with that value being in decimal minutes and the next square root of minutes. This means that you will see one flake before minute 1 of concentration, another flake before 1.41… minutes of concentration have passed, another flake before 1.7… minutes of concentration have passed, another before 2 minutes have passed, etc. You can place these flakes anywhere in sight that you choose before the given flake is made. Sight also includes where you are looking via seeing stone (Divination cantrip), scrying (5th level Divination), through your familiar (level 1 conjuration), or through the eyes of a dominated person or creature (5th level Enchantment, 8th level enchantment, 11th level Enchantment, or if they try to destroy a Ring of Power), or the See All (12th level Divination) spells. The same is done with the Create sparks conjuration cantrip.
11. The boredom check rules for the schools of magic after the first 20 spells learned in total are removed.
12. Spell slots are changed to be simply the sum of the number of levels you have in total in all schools of magic. This is of course in level 1 spell slots where they can be combined into higher level spell slots (2 of these for 1 level 2 slot, 3 of these for 1 level 3 slot, etc).
13. Spell discovery is on the exponential distribution that best approximates the geometric distribution created on slide 4 of how long it takes to learn a given spell (2^level weeks) versus the probability of learning it (p=intelligence/(intelligence + 10 + spell level^2) at a School otherwise p=intelligence/(intelligence + 20 + spell level^3)) while at a School of Magic or trying to learn it out of a scroll where someone else has already written it (using the materials required on slide 205). The requirements for writing are such that if you were to write a program on a computer to try to figure out a spell, and it succeeded, then it is deleted. If the program was using the brute force method with the variation of saving the options that didn’t work as it sees them to some other system (other than the brain of a perfectly normal D&D creature like a human (not to be interpreted as allowing you to use Polymorph to replace the Alter Self, Reincarnate, or shapechange (slide 194) as in you cannot use Polymorph to change yourself into another human, tiefling, elf, dwarf, gnome, halfling, lich, Dragonborn or half-Ork)) to try to get around this limitation (by allowing a crafty computer scientist to realize that the next option the computer was going to try would be a spell) causing all of those other trials to be deleted wherever they are contained. This is all defined in terms of intent, so none of this happens when someone is not designing a system to discover a spell by prohibited means. Artificial intelligences or any construct/metal-based intelligence is not able to understand spells even if a part of it was to try to go to a School of Magic. This is also the case if someone attempts to create a digital version of themselves or replace biological neurons with computer chips.
14. A new creature that cannot be created by any spell, but is instead the form someone with psionic points who puts at least one other person under psionic suggestion for at least 168 hours total (each minute of dominate person (can be considered added to slide 28 at level 8 also with 20 minutes preparation to 1 minute of control) counts as 5 minutes of suggestion, each point of psychic damage done via psionics counts as 1 minute of suggestion for this calculation, each minute of being power word stunned counts as 20 minutes of suggestion) is an Animated Darkness. The person using this suggestion on other people only becomes this after they die and while in this form can choose to end themselves by deliberately going into sunlight. There are no game statistics for this creature, instead it can be considered to have 1 hp but is immune to all forms of damage other than force damage and radiant damage who automatically succeeds the saving throws on spells that do not involve a Charisma saving throw (as in cantrips that deal radiant damage do not affect it, but those at high level that deal half damage (force/radiant) on a successful save kill it instantly). It dies immediately if any spell with a Charisma saving throw is cast at it (as in, it is not possible to change its form even with True Polymorph). These previous types of death cause it to become a “vestige” (provided it knew at least one actual spell) capable of providing one spell it knew in life to be used once per day along with a sixth sense that allows a host to immediately know the position (whether asleep or awake) of any person who has at least one spell slot or psionic point within a number of feet equal to the number of psionic points it had while alive times the number of spell slots it had while alive. Such a host must be actively seeking such an interaction and gives up some amount of control over their lives to allow that vestige to feel alive again. It dies immediately if dispel evil and good, healing word, heal, mass heal, lesser restoration, death, or greater restoration are used on all people who are “keeping it alive” by virtue of having had the above 168 hours of suggestion done to them; this destroys the vestige form from above. The Animated Darkness disappears when hit with light such that the average intensity over its form is greater than .1 watt/meter^2 it immediately appears inside the nearest darkened (less than .01 watts/meter^2) place to one of the above suggested people that can fit its form (same as it was in life). The Animated Darkness cannot use any spells or psionic spell equivalents that require saving throws, and cannot use any that it never knew in life. An animated darkness is able to deal 1d8 piercing damage to anyone who cannot see it that it can get within 5 feet of, with speed as in life, otherwise it is considered to have a dexterity of 13. Creatures with dark vision see it as blending into the surroundings without being able to see through it. Creatures with devil’s sight see it as a dark form they can look through but also intuitively know how close it is to them and that it is a creature. Creatures with True Sight see it as who the person was in life. See invisibility doesn’t allow you to see it. The Animated Darkness is able to carry objects and corpses, but it cannot carry living creatures. Anything it carries is dropped where it was standing when it disappears due to light (lighting and fire damage spells make it disappear in the same way, including cantrips that pass within 5 feet of it that it otherwise succeeds against). Animated Darkness is considered undead with truesight to all distances.
15. Force damage used on water in a contiguous volume (as in, not in living cells) will turn 20 grams/point of damage into oxygen and hydrogen gas without heating them (prevents them immediately recombining explosively) or reducing their temperature below that of the original water.
16. Someone who has learned the force wall spell from the school of evocation who then goes through the school of abjuration far enough to choose an “abjuration spell” to be able to cast subconsciously (without taking verbal or somatic or time components) may choose to have force wall as that spell.
17. Force wall, prismatic wall, globe of Invulnerability, shield, Protection of City and similar non-material “walls” automatically maintain the internal air pressure while removing any toxic gas from inside the area (only if there is one true “inside”) if the caster so chooses.
18. Someone with invulnerability casting it on themselves through a Ring who loses that Ring becomes susceptible to Force damage. If the Ring is used to cast a different abjuration spell, they lose the invulnerability as before. Invulnerability doesn’t give you food, water, sleep, or air, so if those things are not available to you, you will die according to your biological characteristics (one of the reasons why you may want to Polymorph yourself into a Golem if you can).
19. Radiant burst conjuration cantrip uses up 25 experience points per point of damage dealt to creatures and objects cumulatively. The caster can choose to set a limit on the total damage it will deal to avoid losing too much experience (automatically chosen when it would otherwise take them less than 0 xp, which would otherwise kill them). Each point of this radiant damage counts as 2 points against undead creatures.
20. For fighting spells that deal 1/2 damage when you succeed on the saving throw (or using a level of legendary resistance), using a[nother] level of legendary resistance allows you to eliminate the greater of 30 points of damage or another 1/2 of the remaining damage. If such an evocation wizard desires, they can be considered to continue using levels of legendary resistance until either they run out of damage or levels. Magic missile is stopped by 2 levels of legendary resistance plus 1 for every level higher it is cast at (removing each bit of damage respectively with the first three missiles together negated by the first two levels).
21. Levels of legendary resistance and subconscious spell casting ability among other features gained at Schools of Magic (slide 3) are regained at the end of a long rest (8 hours).
22. The spells that you gain access to the ability to cast subconsciously once per day without actually studying for them specifically are not actually added to your spell book if you do not study them specifically like for normal spells. Not studying for them specifically stops you from being able to cast them from your spell book using spell slots. Using a spell slot for a spell requires that you have it written in your spell book and have flipped to it and reminded yourself about it that day (in other words, prepared it, the number you can prepare corresponds to your intelligence modifier as before).
23. You can technically cast cantrips using spell slots if you have them written in your spell book. There really is no point to doing this unless you are just trying to increase the intelligence requirements of a Ring of Power by casting the cantrip using a higher level spell slot into a Hold Power object to be consumed into the Ring and passing the intelligence check required of that spell slot level to put it into that Hold Power object.
24. For clarification, the Artificer who made the Hold Power object consumed into a Ring of Power cannot then remove the ability of that Ring to cast that spell like he can the Hold Power object before that happens.
25. Prestidigitation is moved from the Transmutation cantrips list to the conjuration cantrips list (slide 58). Prestidigitation is changed to have the base abilities to clean or soil a 5 ft square of area, then have the ability to replicate in a very minor way the actions of any spell at a level of a School you have gained without any material components or knowledge of the spell specifically. For example, if you have achieved level 8 in the school of necromancy, you can use prestidigitation to do the minor equivalent of finger of death by making an undead cockroach that you control forever out of a normal living one. You can, if level 13 in the school of evocation, use prestidigitation to make a 1 watt laser with a width of 5 mm going out to the range for your concentration as the minor equivalent of a controlled supernova. If you reach level 11 in the school of Transmutation then you can use it to make pure gold or pure platinum objects or components of objects immune to non-magical damage as the minor equivalent of create Ring of Power. The minor equivalent of Universal suggestion (12 level Enchantment) for when you reach 12 level in the school of enchantment is to be able to make anyone within the range of Prestidigitation make a second consideration of something they originally rejected. The minor equivalent of scrying is to look at something within range for 10 seconds of concentration without moving over to there. The minor equivalent of See All (12th level Divination) is to see from all perspectives within range for 10 seconds of concentration (none of these times can be extended either by having higher levels in the school of conjuration or casting this via a Ring of Power). If casting this via a Ring, this still requires that you have gone through those other schools of magic. The rule of thumb for the rest of these effects is that they have normal cockroach sized effects and do not deal damage to creatures larger than normal cockroaches (other than the laser replacement of controlled supernova and that light-based effects will make an Animated Darkness disappear). Such small things created that remain under your control forever are themselves able to attack, but they cannot replicate or build mechanisms capable of replication. A biological virus created will have to attack the cells of a target sequentially without being able to use those cells to replicate themselves or more dangerous things such as cancer.
26. Astral Projection is added to the psionic spell equivalents list at the same level as the Glyph of Warding equivalent and also using up 4 hours of preparation. This has the one change from the spell of enabling you to place your material body and possessions on the astral plane or in a strictly magical demiplane you created (using the 8th level conjuration spell, slide 73) while you move around on the Astral Plane.
27. Plane shift is added to the psionic spell equivalents list at the same level as Glyph of Warding and Astral Projection. This uses up two hours of preparation.
28. Astral projection cannot replicate a Ring of Power (just as how no spell can destroy a Ring of Power) either the Ring stays with the body or goes with the astral form while they are separate. If it goes with the astral form, then it is lost if you are killed while in that form.
29. The one spell that gets around the prohibition on divination spells cast against someone who wields a Ring of Power by someone who does not is the Foresight spell (9th level divination).
30. A new “class/subclass” is added: “Warlock of Yahweh”. It has the benefits of being able to cast Foresight, Control Weather and Water Walk as cantrips. Your spells are based on time rather than your rest. You gain immunity to death via exhaustion (not exhaustion itself) and radiant damage. You also get to cast healing word once per hour, dispel evil and good or invisibility once per day, True Seeing once per 2 days, Mass Heal once per 7 days, banishment once every 14 days, scrying or arcane sword (without material components) once per 40 days, create Food and Water (without material components) or flesh to stone once per 50 days, greater restoration (without material components) once per 60 days, mirage arcane once per 70 days, teleport once per 80 days, True Resurrection (without material components) or Earthquake once per 100 days, Gift of Life or Meteor Swarm every 110 days. You know these spells immediately and cannot learn how to cast those listed using spell slots. You have the disadvantages of that if you damage a living person not a fiend or fey by any means other than those spells, you take damage equal to the damage you deal in psychic damage. This includes normal weapons or using bare hands. You also take 4d6 force damage whenever you cast a spell on the seventh day after casting spells each day for the previous six days and whenever you attempt to use a psionic spell equivalent or an enchantment spell at any time. These above spells do not use spell slots.
31. In general, since the Gate Spell (9th level conjuration) description states that a planar ruler can prevent it from opening on their plane of existence, we can extrapolate this to making an intelligence check against the original caster of a demiplane to get to it. If forbiddance is cast inside a demiplane to prevent anyone coming in (or coming in via doors other than those which already exist), the Gate spell (9th level conjuration) is the only spell that can still allow you to access that plane of existence, but without accessing that particular room. As in, the gate will open into the very rock or wood that surrounds the room, which must be broken by some means that is neither the disintegrate (6th level transmutation) spell, nor the Fabricate spell (4th level transmutation), nor dispel magic (3rd level abjuration) or Global Dispel Magic (12th level abjuration). This is due to the disintegrate spell dispersing into the entire room such that the entire plane of existence in question ceases to exist (except for if a Ring of Power (or person with Invulnerability, or Arcane locked “box” that withstands the remaining force damage) is there, which can then only be accessed through a random portal on the astral plane (the portal in question can be found via the “Find the Path” 2nd level clerical divination spell)); the Fabricate spell doesn’t work because material cannot be “pulled out” of the walls of the demiplane; dispel magic may or may not work as both the forbiddance spell and the demiplane spell will have to make their own saving throws, which if the demiplane spell fails and forbiddance succeeds the stuff contained in the plane will be contained in a complicated light-like bend on the astral plane (similar to the event horizon of a black hole but without the time-dilation effects) that looks like a 30 ft on a side Tesseract (the mathematical kind, not the Marvel Cinematic Universe kind) such that you can only access it via figuring out how to plane shift within the astral plane to the same relative set of dimensions the stuff is contained in within the astral plane without plane shifting into the Tesseract itself, then casting time stop (9th level transmutation) before traveling to where the stuff is, if forbiddance fails the check and demiplane succeeds, then dispel magic will have allowed you to get to the stuff using a normal portal to the inside of the room, if they both succeed, dispel magic does nothing to them (of course), if they both fail, then the demiplane ceases to exist as normal the material contained within it goes into the same 30 ft Tesseract on the astral plane, but you don’t have to use time stop to get to it after figuring out how to use plane shift within the astral plane (as in an otherwise “prohibited” use since plane shift is supposed to only move you to a different plane of existence) splicing a dimension door with a sword of undeath (10th level necromancy) while time is stopped at the instant of casting dimension door (very difficult to do without a Ring) gives you a more guaranteed route of getting the right combination of dimensions within the astral plane to get to the stuff. Rather, meld into stone, investiture of stone, tree stride and passwall are the best ways of going from the portal that is deep inside the wall of the demiplane to inside the room for which forbiddance has been cast.
32. Casting Teleportation Circle from the deck of a space ship for whom time is slowing down relative to the target could result in the people traveling through to the other side where time is moving faster to be separated by that amount of time on the other side, which could be 1000s of years of that portal remaining open on that side while it only remains open for 6 seconds on the ship.
33. The normal range of the Banishment spell’s first target is extended to 150 feet. The other targets (from casting at higher level spell slots) must be within 60 feet.
34. If you cast Banishment on yourself (or a willing person) you can go to the Astral Plane (or your own plane if you started on a plane not your own) instead of a Demiplane, and if you go through a portal on the astral plane back to the plane you started on before your concentration (or the 1 minute) ends, then you do not go back to the same place you were when you cast banishment on yourself. The part of the Astral Plane you end up on will be similar in terms of graph theory isomorphism with the Astral Plane’s portals to those positions in the material plane. Objects can be left on the Astral Plane this way, objects cannot be left on a Demiplane this way.
35. All movement, initiative and non-magical weapon attacks (including movement of projectiles) are based directly on the intelligence of those involved on the Astral Plane. As in, a gun fired by a robot of 2019 will have its projectiles move at probably 1/10th the speed of the average human.
36. Elvish High magic is allowed to be implemented with the remaining listed spells of D&D given experimentation by Elves who fundamentally understand all the real spells related to the High magic they are trying to use. They also must take 75 years of predictions every day about one of:
    1. How a spell they have not learned will work outside of school or
    2. Spending hours predicting how a feather will move in a wind or current, how a cider will move through the air.
37. No High Magic May be cast while wearing a Ring of Power, nor May any High Magic be repeated by a Mythalar or learned while within the default range of a Ring. High Magic spells can only be discovered by Elves, but once that happens anyone else will be able to hypothetically figure out the spell after they have done their base High Magic training above. New High Magic spells may be created as variations and combinations of normal ritual spells and cantrips.
38. The High Magic ritual of the Myriad that is most similar to the 9th level Abjuration spell imprisonment (and thus all casters need to first learn that spell along with Global Dispel Magic due to its feature of removing every magical effect created by that person while they were using a Ring in a similar manner to dispelling the effects using that Ring itself, which means the damage they have dealt is not undone) is capable of removing the Control Rings of Power’s suggestion and dominate person power from the person who cast telekinesis in the making of the Ring. This doesn’t destroy Rings of Power but can effectively remove them from “existence” if they are at the time of casting being worn by the person being bound away until, for example, a man born of an elf cleric, dwarf ranger, tiefling sorcerer (as in would have to have had one parent with devil features or ancestry and one who is a human who cut themselves with their own sword of undeath), and gnome mystic hosting a half-Orc vestige casting Prismatic Wall at the point where this ritual was done. This ritual requires a number of hit points shared among the casters equal to the hp of the target plus the total number of spell slots known by the target plus the number of spells known by the target plus the number of psionic points of the target. This then applies over all of space at the same time as defined in previous rules for scrying.
39. Casting variations of rituals of solitude (all “spells” available within D&D 5e available as normal spells as of December 31st 2019 not listed within the attached PowerPoint above along with all rituals of solitude made for D&D by that date, all ritual spells and cantrips) as Rituals of Complement using up some experience points and hp (determined through experimentation, will always be less than 100+2^level of “spell”+sum(2^level of spell i combined into it) experience and/or hp for the minimum 5 casters each, divided by the square of the number of casters, with more allowing that total to be better distributed with a lower total) of the casters can make those spells either permanent or [either increase the range by 500 feet or double the previous range, which may be stacked by having several sets of casters expending this over again while being mentally in tune with each other]; you can double the casters involved and that cost in total to do the other option.
40. Figuring out the Killing Storm ritual of the Myriad requires first fundamentally understanding Dispel Magic (as opposed to just being able to cast it subconsciously), Anti-Magic Field (similarly), control weather, call lightning, fireball, cloud kill, then your own experimentation. It requires similar understanding of the real spells most similar to a given High Magic spell that is attempted to be learned among all participant casters to even start figuring them out via experimentation. They are then cast as rituals, requiring no spell slots or scrolls being consumed.

An interesting thing you can do using a couple of Rings is to have one of them designed with Demiplane while the other is designed with Magnificent Mansion along with each being designed with True Polymorph, prismatic wall, Force Wall and control monster. This allows you to create a permanent labyrinth of demi-planes where only one path exists to get to where the Rings are, which could be within a series of 250 (if you have an intelligence of 510) magnificent mansions with the doors to each other being in a random closet of the previous mansion (the first mansion’s door being within the innermost demiplane of the n-dimensional labyrinth of demiplanes where each looks exactly the same with, say 10 doors to other demiplanes, to the material world or to other planes of existence (However, if one is opened within the area of a Protection of City, then the others that do not open to that same Protection of City but are made with doors in series to the one that opens to the Protection of City loose the ability to open to areas outside of the Protection of City, including to other planes of existence but the doors themselves may continue to exist (unless dispelled by Dispel Magic but not Global Dispel Magic (which of course prohibits accessing other planes of existence within its area of effect, but doesn’t dispel the effects created by Rings of Power while those Rings can be considered to “concentrate” on their respective spells)) but will not be able to open by any means including knock). This will be one case where the Find The Path spell will be very useful, but since it is a Divination spell and as far as the example on slide 198 is concerned, this would be a clear example where you would need a Ring for yourself to use this spell. This labyrinth of say 25 demiplanes (10 casts are used on each demiplane to provide doors to other demiplanes or the material plane) can be made even more secure by taking the time and gold to cast forbiddance (this creates the dangerous situation of if you accidentally use the Ring that created that demiplane to cast a different Conjuration spell, you lose access to that demiplane forever, which is why you will want to place both Rings at the very end of the 250th magic mansion from the 250th demiplane (average travel time) at the center of the labyrinth contained within prismatic walls and making sure the 500 controlled monsters assigned to the system continue to do their jobs (presumably having been given truesight to round out the spell casting capabilities of the two rings, the last school of magic being unaccounted for is illusion, which can be used to put a phantasmal force over all of the necessary doors to get to the Rings to make it look as though those doors are not there)) and an arcane lock (slide 37) on each door cast normally.

One example of a useful way to use a High Magic ritual of complement would be to give yourself a very annoying kind of lichdom where you make a familiar that is given permanence by virtue of the original spell stating a duration of “instantaneous” even though under the original terms it lasts until killed, meaning that permanence would have it instantly reform whenever it is killed. You gain the lichdom if you are killed while you were, as your action, looking through the senses of the familiar. You are basically then permanently that permanent familiar which is incapable of making attacks, and incapable of casting spells since you are not there to cast them. Outside of this use case, the familiar has increased usefulness in that it can go indefinitely far away from you without disappearing. The other feature of this being one of the available ritual spells is that this means you can come up with your own rituals of solitude that involve creating spectral animals. You can then make those other inventions permanent by casting them as rituals of complement, and give them additional powers according to what cantrips can be grafted into them. The main way to do this will be grafting in the transmutation cantrip Magic stone to give, say, a spectral owl the ability to attack with its beak dealing the same damage as that stone. As opposed to say, grafting in fire bolt which simply will make it burn indefinitely, or acid splash to make it continuously surrounded by a 5 ft radius sphere of acid that may or may not (according to the saving throw) deal damage. That instant summons is a ritual spell entails that you can cast a high magic version of it as above with a ritual of complement, allowing you to permanently be able to press on (without crushing) the sapphire to summon the same object over and over again provided it is not held or carried by someone else. As above, this allows you to incorporate instant summons into other spells within High Magic, provided, of course, that you learned the real instant summons spell from having gone through the school of Conjuration or understanding it from a scroll. That magic mouth is a ritual means that you can incorporate it into High Magic in ways that far extend the length of the message given also that message is a cantrip, so it can be incorporated with it. That meld into stone is a ritual allows for very interesting High Magic implications such as having spectral animals from the variations to Find Familiar pass through stone walls. That crown of madness is a spell listed in the official D&D sources but is not in the attached PowerPoint means that you can incorporate it into High Magic such as by using it in an invented ritual of complement to be able to force someone to walk through the walls (incorporating the previous) of a dungeon to attack all of your enemies; and, by virtue of Aura of Vitality (or even better: Power Word Heal, though that requires up to potentially 512 additional hp or experience from each caster among 5 casters of the more useful ritual of complement version combined into the other spell, which then makes such healing permanent until the target can be killed outright by your opponents in one hit) being one of those other spells listed in official sources but not in the PowerPoint (and spare the dying being a cantrip, thus also able to be incorporated), you can make that thrall nearly invincible when fighting a few non-magical opponents at a time through that dungeon. Due to phantom steed also being a ritual spell (along with floating disk), you can create a high magic variant of a combination of the two giving you the ability to slightly exceed the weight limit of the floating disk, while taking away the disadvantage of the horse disappearing due to taking damage. You can then make it travel in the direction you want at 16.7 ft/s, making it as a ritual of complement would then make it permanent (beyond the 1 hour limit). That purify food and drink is a ritual allows you to create a ritual of complement to have the floating disk/phantom steed continually travel around fields and trees, etc to remove all poison and disease from non-magical plants. That silence is a ritual allows for rituals of complement to make a gradually changing volume of 33,510 cubic feet be silent, changing according to rules created at the time of casting. Since speak with animals is a ritual with a range of self (along with magic mouth), as is comprehend languages, you could hypothetically create a high magic ritual of complement with double the price in terms of hp, experience and casters to give animals the ability to speak, be understood by all, and understand all languages (as if by the awaken spell) permanently. Due to telepathic bond being a ritual spell, you can incorporate it into High Magic as above in very powerful ways by, say, having all your guards be telepathically connected permanently. Since unseen servant, tiny hut, water walk, and water breathing are all also ritual spells, you could, as above, create an army of unseen servants made to attack against their nature by crowns of madness (you might not even need to make them attack if you include into them the armor of agathys to deal cold damage against anyone who tries to get through the moat and touches them, with forbiddance (6th level abjuration ritual) behind them and silence ahead of them) and protect the moats around your permanent tiny huts (now with 310 ft hemispheres, since that is a spell where the range and area of effect are the same). It may make far more sense to use the actual rituals of complement in order to build up far more complex structures and protect them with far more potent spells such as enchantments that make people simply not see what they are looking for. The replication of an imprisonment spell in a somewhat impractical way (requires restraining someone for 10 minutes while you cast it, along with the expenditure of hp or experience points of a ritual of complement with the extension of permanence) is to make a ritual of complement of banishing smite, since that spell is available in D&D but not listed in the PowerPoint, combining that with forbiddance then makes it impossible to reach into the demiplane where they have been incapacitated forever (i.e. until a spell similar to lesser restoration is cast on them) except by a Gate spell cast deep into the walls of the demiplane, and if you have 8 casters, each will lose a maximum of 15.3 hp and experience. An even cheaper way to make a low-level version of of imprisonment is to combine the cantrip Feign Death with the ritual Gentle Repose in a ritual of complement, but that will first require making the target into a willing state separately. Charm monster and Arms of Hadar (or cloud of daggers, conjure barrage, conjure volley, infernal calling, summon lesser demons, summon greater demons, could be combined with floating disk to allow it to move) are other such spells, and they could allow for better permanent allies with High Magic than just making a bunch of spectral animals with piercing damage, mad unseen servants or convincing awoken animals to fight for you. If you summon demons or devils to fight for you, you will probably want to include an automated magic circle (ritual, so can be built in) and a backup of a crown of madness with a permanent spectral owl that the demon or devil is forced to fight whenever you don’t have an opponent for them to fight; this is one of the only ways of getting access to a creature above level 9 (creatures level 9 or lower will be rather common by the time High Magic is invented by virtue of all the people who spend 7.75 years in the school of Transmutation being guaranteed access to True Polymorph, thus allowing them to create many silver dragons and others out of silver dragon sized rocks once a day each; however, on the other side, I provide no way to define character level of anyone other than sorcerers (the children of a wizard who cuts themselves on their own sword of undeath), which prevents anyone other than high level sorcerers from turning themselves into creatures with a higher challenge rating than 9). Crusader’s mantle then increases the damage potential of your allies in a very stackable way. The Dawn spell (if you know daylight, similar to knowing the real spells directly related in terms of effects to a given High Magic) can be controlled through a high magic ritual of complement to be made basically into a wall of radiant damage, or it could be built into a summoned creature designed with it to be emitted in some shape filling a 113,097 cubic foot space of some design. In terms of spells having the same area of effect as they do range when cast as rituals of complement (doesn’t apply to rings of power, for which that only happens with Daylight) a cool spell of this kind is destructive wave, which, if made permanent, can be used to make a wall of thunder damage with radiant or necrotic damage along a circumference based on the expansion of the radius chosen by the casters (doubling the number of casters relative to the first set casting permanence in order to get a 330 ft radius, then doubling that total again with another set of casters equal to the first two to get a 660 ft radius, each set presumably losing 5\*(100+2^5)/(number of casters)^2 hp and/or experience to each member). That Druid Grove is one of the spells in official D&D lore, but not in the PowerPoint is very Elvish, allowing you to use even just a slightly altered ritual of solitude with some aspects of other spells considered acceptable rituals of solitude under these rules (as above and throughout this paragraph) to make an unmistakably elvish home. Of course, the ritual of complement version always makes this better with more immediate permanence with other above features to make a well-protected home.

Since high magic involves intimately controlling how spells work, for the purpose of determining the intelligence check for the dispel magic spell used against it, consider it as though the average spell slot being used to cast the High Magic were equal to 10 plus the sum of the levels of the spells (normal or high magic) being combined in principle to make the casting work. The 10 is due to High Magic itself being a kind of Control Spell (normally a 10th level enchantment spell) method of casting, without any of the casters necessarily needing to know that spell, particularly since the Control Spell spell is far less powerful than this method of casting. Of course, where the spells are combined into one casting, it is all of that casting or none of it that fails.

For the purpose of Anti-magic field and Anti-magic aura (Ritual of solitude), Rings of Power (considered artifacts) can only act within them as if in the state of creating a column of protection from darken planet, poison planet and supernova, as in, the only spell they can cast is Daylight. All Rituals of Complement and Rituals of the Myriad, even when they don’t form objects (strictly speaking), are considered artifacts for the purpose of having their effects not suppressed by either anti magic fields or auras. This must be considered the case due to the fact that the spell for creating artifacts is a Ritual of the Myriad, as is the spell that forms the equivalent of Karssus’ Avatar/how wish used to be in D&D 5e, “At War with the Weave,” which is the only way to change the rules of this system, but more likely will result in the main caster turning into a vestige while all magic fails (or dangerously random effects occur, such as temporal loops from that point forward, not limited to having the casters killed over and over again by a loop that may take anywhere from 1 second to 10,000 years to repeat, potentially until they figure out a way at the point at which the spell has been cast, to not die from their spell; it will be necessary that the Karssus’ Avatar version of this spell work at least a few times in some settings to have Divination, Augury and Commune work properly since Yahweh is immune to those spells and similar spells that would otherwise require divine intervention, but such others will not be and will be dependent on their clerics to wield their main powers) within a reasonable distance from the planets nearest to where it is cast, all according to how much they fundamentally understand the universe, as opposed to the rather artificial, intelligence scores and stochastic processes associated with their time in schools of magic. Of course, notably, this means that killing storm’s anti-magical protection effect will not undo a power word heal built into a person by a ritual of complement. Rituals of the Myriad having the feature of having the hp and or experience requirement divide linearly among the casters rather than quadratically. The Karssus’ Avatar version of At War with the Weave then requires 5\*(100+4096+512) hp (to follow the same first part of the formula as rituals of complement, where we have a 12th level spell and a 9th level spell, though the casters themselves don’t need to understand those two spells (Karssus’ Avatar ( <https://docs.google.com/document/d/19DF31re5vrsFPUMIKsjv8S2l34E2R510e6fnpwRhm4g> ) (which no one can have access to since it is a spell of multiple schools of magic at once, which creates a contradiction of the rules that you can only cast spells of one school of magic each day while learning a spell of that school of magic) and Wish (which would be a contradiction of the rules of learning High Magic that you must be an elf, but to be a sorcerer you must be the child of a wizard who cuts themselves with a weapon of undeath, who technically then becomes a demon, thus any child they have is technically a tiefling, though not necessarily a version with Thaumaturgy))) total from all casters (just like in the description for the ritual of the Myriad most similar to imprisonment, but appropriate to this idea of casting) and potentially unbounded amounts of experience depending on who in D&D the main caster wants to become (limited to a maximum of 1,000,000,000 exp for anyone below Mystra (existing or not existing depending on the setting in which these rules are implemented), as this prevents something like Karssus’ folly), though the casters can still cause similar amounts of damage in death for attempting that even without the experience requirement. To fundamentally change the rules of the game (such as adding a true spell into the leveled spell list in the PowerPoint above, removing or adding a particular effect of a given spell (such as making or taking away ritual status), moving a spell over to High Magic (or within the ranks of High Magic), increasing/reducing the time necessary to cast High Magic, or changing how the schools of magic work) requires knowledge of all the real spells currently in that spell list (or in the revision created by the previous successful cast of At War with the Weave in that manner) by all the casters personally before such a cast of At War with the Weave has even a slight chance of working (including the 16th level abjuration spell). The hp and experience cost of doing this is similarly bounded by 5\*(100+sum(2^level of spell i directly affected)+sum(level of spell i indirectly affected)) and 1,000,000,000 (falling directly dependent on the change in the balancing of the system), respectively, provided the casters are not trying to do something stupid like make At War with the Weave into a cantrip. Directly affected spells include every spell that is made redundant by a new spell (presumably the spells above a given spell that does similar things or more useful things), and every spell lower in level than a given spell in a school of magic generally is going to be at least indirectly affected, the spell being added or removed is of course both directly and indirectly affected. However, currently existing spells in the system made more effective (without changing the description itself) are not considered in the calculation (i.e. making the ritual of complement version of Power Word Heal susceptible to Killing Storm’s removal of “all” magical protections does not require that the equivalent spell level of Killing Storm be added to that calculation, just as Anti-Magic Field or Aura don’t need to be added to the calculation if Rituals of Complement and Rituals of the Myriad are made susceptible to them; to be fair, the latter is nearly impossible in terms of the hp requirement as 2^level (or level equivalent in terms of general effects) of every spell that can be incorporated into such magic in both levels has to be added to the calculation). An example of creating a spell is: <https://docs.google.com/document/d/1A83cNa1O2WiWsoQYhk8mXaMJmC627UoaB9-syhWW5Sw>

Of course, attempting to change the course of an event in the past using At War with the Weave (such as to eliminate the effects of a previous At War with the Weave cast disastrously) is the use case most likely to result in the casters being trapped indefinitely in a time loop of their deaths due to the spell, and even worse if they try to use it to invent a normal spell (or lower cost high magic) that affects things backwards in time.

More importantly for calculating costs in High Magic for At War with the Weave is in specifically removing the ability of Global Dispel Magic and Dispel Magic from affecting High Magic (presumably keeping that power for Erosion/Corrosion ritual of complement, etc), which, based on the above rules, would only require 21,020 hp from all the casters, and since that makes minimal changes to the balance of power (since no one really wants to cast Global Dispel Magic, and Dispel Magic has a very low chance generally of allowing even large numbers of casters to beat the intelligence checks of High Magic), that may only require as few as 21,020 experience points from all casters.

The ritual of the Myriad most similar to Imprisonment if used on a person who used At War with the Weave in a manner similar to Karssus’ Avatar ( <https://docs.google.com/document/d/19DF31re5vrsFPUMIKsjv8S2l34E2R510e6fnpwRhm4g> ) will only remove the effects they have created on the plane of existence in which the Ritual of the Myriad most similar to imprisonment has been used, but their agents (“Clerics” as D&D 5e describes, having taken away access to the Clerics Only spells in the PowerPoint except as specifically granted (as in, simply going to a Monastery won’t work after that point) without needing to expend the hp at the time of casting (of At War with the Weave) of directly or indirectly affecting those spells, which they would have to do if they tried denying others such access by the same means, which also requires the far higher intelligence check associated with using At War with the Weave in any manner other than slightly reducing the powers of certain spells or the Karssus’ Avatar ( <https://docs.google.com/document/d/19DF31re5vrsFPUMIKsjv8S2l34E2R510e6fnpwRhm4g> ) equivalent) will still have their remaining so given powers as spell slots that are not thereafter recoverable. Changing this nature of how At War with the Weave works, requires, using the rules in the list for the ritual of complement (5\*(100+sum(2^level)), and that rituals of complement are considered of level 10 plus the level of the spell being incorporated), and that At War with the Weave affects all spells (putting it’s equivalent in the spells list at level 17 for reference) puts the hp requirement at 5\*(100+2^27) and the experience requirement as unbounded (up to the experience of all living beings on all planes of existence).